The Dissertation Committee for Stacey Leigh Bates

certifies that this is the approved version of the following dissertation:

Socioracial Group Differences in Family and Peer Influences on Adolescents' Academic Achievement

Committee:

Cindy I. Carlson, Supervisor

Toni Falbo

Michele Guzman

Nancy Hazen-Swann

Timothy Z. Keith

Socioracial Group Differences in Family and Peer Influences on Adolescents' Academic Achievement

by

Stacey Leigh Bates, B.A., M.S.

Dissertation

Presented to the Faculty of the Graduate School of

the University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

August 2004

Dedication

This is dedicated to my best friends, Beth, Leigh, and Sean, and to my sister, Jana. Thank you all for your endless support and encouragement, for excepting me the way that I am, and for helping me remember not to take myself too seriously. You have given me the strength, courage, and determination to make it through this process. I would also like to thank my parents for always giving me the freedom to make my own choices and for never doubting that I would make the right ones

Acknowledgements

I would like to express my thanks to my committee members, Dr. Toni Falbo, Dr. Michele Guzman, Dr. Nancy Hazen-Swann, and Dr. Timothy Z. Keith, for contributing their time and expertise to my project. In addition, I would like to thank my supervisor, Dr. Cindy Carlson. I have greatly appreciated the opportunity to learn from you and your experience as a researcher and practitioner. Thank you for your encouragement and support of my efforts to become a better psychologist, researcher, and writer.

I must also thank the faculty of the school psychology program for allowing me the opportunity to learn from each of you and to grow as a professional in such a supportive environment. Your support and your investment in helping me to develop the skills I need to become the professional that I want to be has been invaluable.

I also would like to recognize and thank Dr. Tom Bonham from Information Technology Services at UT for his assistance with my data analysis. Thank you for helping me develop a better understanding of statistical analysis. Your help was very much appreciated.

Finally, I would like to thank my fellow students, Laura Bennett, Laura Guli, Jennifer Hargrave, and Dr. Michelle Natinsky for their friendship and for their endless support throughout my training and the dissertation process. I have so appreciated having friends like you to share to the joys and frustrations of this experience with.

Socioracial Group Differences in Family and Peer Influences

on Adolescents' Academic Achievement

Publication No. _____

Stacey Leigh Bates, Ph.D.
The University of Texas at Austin, 2004

Supervisor: Cindy I. Carlson

This study investigates the relationships between peer and family influences and the academic achievement of adolescents from diverse socioracial backgrounds. Participants were 2,202 White, Hispanic, and African American students attending four public middle schools in Austin, Texas. Participants completed self-report questionnaires that included information about student achievement, family background, family influences (i.e., parental monitoring, parent involvement, family stress), and positive and negative peer influences.

The investigation examined whether a comparative model or a moderation model better explains the relationships among peer influences, family influences, and adolescents' academic achievement. A comparative model was supported for the overall sample. Results indicated that both peer and family influences play a role in achievement; however, compared to family influences, peer influences accounted for twice the amount of variance in achievement.

A moderation model of peer and family influences on achievement was partially supported for African American students, as a significant interaction was found between self-enhancing peer behavior and parental monitoring for African American students compared to White students. For African American students, positive peer influences served as a buffer against potential negative effects of low parental monitoring, and high parental monitoring buffered against potential negative effects of having few positive peer influences. No significant interactions were found for White or Hispanic students.

When socioracial group differences in the impact of peers and families on achievement were examined, a significant difference was found between White and African American students in the relation of parent involvement and self-destructive peer behavior to academic achievement. Compared to White students, the achievement of African American students was not as strongly related to parent involvement or to negative peer influences. Hispanic students did not differ significantly from White students in peer and family influences on achievement.

Findings of this study contribute to the understanding of how developmental contexts outside the classroom work together to influence academic performance of adolescents. Implications of the patterns of peer and family influences on achievement during early adolescence and directions for future research are discussed.

Table of Contents

Chapter 1: INTRODUCTION

Families and peer groups are recognized as important developmental contexts for children and adolescents, and family and peer influences on development and child outcomes, including academic performance, have been widely investigated. Research indicates that family factors including socioeconomic status (SES), family structure, parenting style, parent involvement, family cohesion, and family stress influence children's academic achievement and social and emotional development (Baumrind, 1991; Chapell & Overton, 2002; Fehrmann, Keith, & Reimers, 1987; Forehand, Biggar, & Kotchick, 1998; Forehand et al., 1991; Georgiou, 1995; Griffith, 1996; Hickman, Greenwood, & Miller, 1995; Keith et al., 1998; Maccoby & Martin, 1983; Mueller & Cooper, 1986). Peer influences on deviant behaviors such as drug and alcohol use (Aseltine, 1995; Urberg, Degirmencioglu, & Pilgram, 1997) and school-related behaviors such as involvement in school activities and academic achievement have been found as well (Berndt, Laychak, & Park, 1990; Brown, Clasen, & Eicher, 1986; Brown, Lohr, & McClenahan, 1986; Clasen & Brown, 1985).

Previous research on peer and family influences has often focused on the effects of one or the other, or on determining whether peers or families are more influential. Such studies have considered peers and families as separate, independent sources of influence; however, research suggests that considering them as related and interdependent may be more appropriate (Brown & Huang, 1990; Steinberg, Dornbusch, & Brown, 1992). There is evidence of a relationship between family and peer influences. Family factors have been shown to influence adolescents' choice of friends (Brown,

Mounts, Lamborn, & Steinberg, 1993; Dekovic & Meeus, 1997; Durbin, Darling, & Steinberg, 1993) and the degree to which adolescents are influenced by their friends' attitudes and behaviors (Fuligini & Eccles, 1993; Lamborn, Mounts, Steinberg, & Dornbusch, 1991). In addition, there is some evidence that peer influences may affect the relationship between family influences and adolescent outcomes (Brown & Huang, 1990; Mounts & Steinberg, 1995; Steinberg, Dornbusch et al., 1992), but this relationship has not been well investigated.

A majority of previous investigations of peer and family influences have been conducted with White, middle SES participants, and few studies have examined possible socioracial group differences. In studies where differences between socioracial groups have been considered, differences between groups have been found. For example, some investigators found no relationship between parenting style and school performance for African American and Asian American adolescents (Glasgow, Dornbusch, Troyer, Steinberg, & Ritter, 1997; Steinberg, Darling, & Fletcher, 1995). In addition, findings have indicated that non-White parents may be more likely to be involved in their children's educations (Fehrmann, Keith, & Reimers, 1987; Keith, Reimers, Fehrmann, Pottebaum, & Aubey, 1986) and that African American adolescents may be less peer oriented than White adolescents (deCindio, Floyd, Wilcox, & McSeveny, 1983). Although racial differences in the influences of family and friends have been reported, research in this area is limited.

The current study is an investigation of the relationships between family influences, peer influences, and academic achievement of adolescents with varying

family socioracial backgrounds. Before continuing with the introduction of the study, it is important to define the use of the term *sociorace*. Both the terms *sociorace* and *race* are used interchangeably in this investigation to refer to a person's socialization based on his or her perceived race (Helms & Cook, 1999b). This construct of sociorace contends that the way in which people are treated based on observed racial background shapes their beliefs, attitudes, values, and behavior (Helms & Cook, 1999a). Thus, sociorace refers not only to classification according to some set of physical characteristics, but also to a shared set of socialized attitudes and beliefs (Helms & Cook, 1999a; 1999b).

The investigation will allow for a better understanding of how contexts outside of the classroom, family and peer relationships, interact to affect the school performance of adolescents from different socioracial backgrounds. Two models of influence are proposed. First, a comparative model is considered. Family and peer influences are examined separately in order to determine whether one has more influence on adolescent achievement than the other. Next, a moderation model, in which peer influences moderate the relationship between family influences and academic achievement, is considered. Racial differences in the influence of family and friends on academic achievement are examined as well.

Data were obtained from self-report questionnaires completed by students at four middle schools in the Austin Independent School District as part of a study conducted by Carlson & Lein (1998). The following questions are addressed: (1) Is there a unique effect of family influences on student achievement, adjusting for peer influences? (2) Is there a unique effect of peer influences on student achievement, adjusting for family

influences? (3) Is the differential effect of peer and family influences on student achievement the same across socioracial groups? (4) Does peer influence moderate the relationship between family influence and student achievement for each socioracial group?

Family and peer influences are expected to affect students' achievement, as measured by self-reported grades, but peer influences are expected to have a greater effect than families for adolescents from all racial backgrounds. In early adolescence, peer relationships become more salient, and the pressure to conform to peers increases (Berndt, 1979; Brown, Clasen et al., 1986; Clasen & Brown, 1985). Adolescents spend more time with peers and less time with parents (Berndt, 1982, 1986; Steinberg, 1986); therefore, peers are expected to have more influence on the academic achievement of the middle school-aged participants in this study.

In addition, peer influence is expected to moderate the relationship between family influences and student achievement for African American students, but not for White or Hispanic students. Previous investigations have found that positive peer influences magnify the effects of positive parenting and buffer some students from the effects of negative parenting. Negative peer influences have been found to undermine the effects of positive parenting (Brown & Huang, 1995; Mounts & Steinberg, 1995; Steinberg, Dornbusch et al., 1992). This moderation effect has been found for African American and Asian American students, but not for White or Hispanic students (Steinberg, Dornbusch et al., 1992).

Chapter 2: REVIEW OF THE LITERATURE

The separate influences of families and peers on adolescents' academic achievement have been fairly well investigated, but the interdependence of family and peer influences and socioracial group differences in the influence of parents and peers have received less attention. To examine the influence of family and peer relationships on adolescents' academic achievement, the literature is reviewed. First, cautions associated with the use of racial category labels in research are discussed. Then, historical differences in academic achievement between White students and students from minority racial groups are reviewed. Family factors associated with adolescent development and achievement, including family socioeconomic status (SES), family structure, parenting style, parent involvement, and family cohesion and stress are then examined. Next, peer influences on deviant and school-related behaviors are reviewed. Finally, the relationships between parent and peer influences and their effects on adolescent achievement are explored. Racial differences in parent and peer influences are considered as well.

Examination of Socioracial Group Differences in Academic Achievement

Use of Racial Category Labels in Research

The term *socioracial socialization* has been defined as "how others treat a person because of her or his race" (Helms & Cook, 1999a, p. 7), and socialization based on perceived race works to influence the attitudes, values, thoughts, and behaviors of individuals (Helms & Cook 1999a). Members of a particular socioracial group may have similar experiences and political and economic histories (Helms & Cook, 1999b) and, as

a result, may develop similar attitudes and behaviors. Researchers have found, however, that there is often considerable homogeneity within socioracial groups (Phinney, 1996). Membership in a particular group is often assumed to be associated with particular behaviors, values, traits, and cultural norms, but often in research, such characteristics are not assessed directly (Betancourt & Lopez, 1993). When they have been assessed, characteristics of individuals within socioracial groups have been found to vary (Betancourt & Lopez, 1993; Marin & Marin, 1991; Phinney, 1996). It has, therefore, been suggested that researchers use caution when interpreting findings based on racial category labels (Phinney, 1996). While it is common and necessary in research to use categories of race to describe and compare participants, it is important to understand that due to the heterogeneity of socioracial groups, any differences between groups cannot be explained by race alone (Phinney, 1996).

Cultural Influences on Academic Achievement

Historically, the academic achievement of students from minority socioracial groups in the United States, particularly African American and Hispanic, has lagged behind that of their White peers (Jencks & Phillips, 1998; Neisser, 1986). Although the gap has been narrowing since the 1970s, differences in the achievement of African American and Hispanic students versus White students are still found (Garibaldi, 1997; Jencks & Phillips, 1998). A number of explanations have been posited over the years to explain this difference, but to date, there is no single accepted explanation (Gonzales, Cauce, Friedman, & Mason, 1996).

Past explanatory theories focused on genetic differences between racial groups, a culture of poverty that did not value academic achievement, and a decline in two-parent families as possible reasons for the achievement gap (Jencks & Phillips, 1998). Such theories, however, when tested, were not found to explain achievement differences between socioracial groups (Jencks & Phillips, 1998).

More recently, proposed explanations for the achievement gap have centered on cultural and environmental factors. According to Griffin (2002), research conducted in the United States has revealed that when compared to White and Asian American students, African American and Hispanic students may place less value on academic achievement. That is, in measuring self-worth, academic achievement appears to play less of a role for African Americans and Hispanics than it does for their White and Asian American peers. Two theoretical explanations for this difference have been posited in the research (Griffin, 2002).

One explanation is known as the oppositional culture, or cultural inversion, explanation (Ainsworth-Darnell & Downey, 1998; Griffin, 2002; Ogbu, 1992). According to this theory, involuntary minorities, defined by Ainsworth-Darnell & Downey (1998) as "groups historically enslaved, colonized, or conquered" (p. 563), may have few positive expectations for the future compared to minority groups that relocated voluntarily in search of a more promising future (Griffin, 2002). The theory of oppositional culture contends that involuntary minorities may compare their status and future prospects to that of the dominant culture, and in doing so, develop resentment toward that culture due to their limited opportunities for success. As a result, members of

involuntary minority groups may adopt values that contradict those of the dominant culture (Ainsworth-Darnell & Downey, 1998; Griffin, 2002; Ogbu, 1992).

Some support for this theory, in regard to academic achievement, has been revealed in the literature (e.g. Fordham & Ogbu, 1986; Graham, Taylor, & Hudley, 1998; Majors & Billson, 1992; Ogbu, 1992). Research indicates that due to limited opportunities that exist in society for members of racial minority groups, African American and Hispanic students may feel that they will not be able to be successful and may develop a belief that education will not produce better outcomes for them in the future. As a result, the students may not place as much value on academic achievement compared to students who believe that achievement will lead them to economic opportunities and career success (Fordham & Ogbu, 1986; Mickleson, 1990; Noguera, 2003). In addition, Fordham and Ogbu (1986) have proposed that limited opportunities for African Americans may have lead to a culture that associates academic achievement with "acting White." African American students may then devalue education and put forth limited effort at school in order fit in with peers and to avoid being chastised by peers for trying to "act White." Similar peer influences on the value of education have been reported for Hispanic students as well (Dietrich, 1998).

Although the theory of oppositional culture has received some empirical support, Ainsworth-Darnell and Downey's (1998) research revealed some findings that are contradictory. In particular, the authors found that the African American students in their sample reported placing a higher value on achievement when compared to White students. In addition, African American participants did not feel that they had limited

opportunities for occupational success; however, when Ainsworth-Darnell and Downey examined the lowest achieving participants in the study (i.e., those who had dropped out of school), results were consisted with previous research. Those students reported not seeing the value of education and believing that their opportunities for success were limited.

A second theory proposed in the research as a possible explanation for achievement differences between racial groups is stereotype threat (Griffin, 2002; Steele, 1997; Steele & Aronson, 1998). The stereotype threat hypothesis contends that when students are faced with a situation in which they are perceived as performing poorly, self-doubt and the threat of confirming that negative perception exist; and therefore, there is a possibility damaging self-worth and self-esteem (Steele, 1997; Steele & Aronson, 1998). In the case of African American and Hispanic students, who have often been perceived as low achieving (Jencks & Phillips, 1998), stereotype threat is likely to be present in academic situations. Research has shown that in order to protect themselves from negative stereotypes, students faced with stereotype threat in academic situations may place less importance on school, thereby reducing the threat of the situation, as it affects an aspect of life that in no longer as important. Such a decline in the perceived importance of school may then result in a decline in academic performance (Steele & Aronson, 1998).

Research has revealed some empirical support for the stereotype threat hypothesis as a possible explanation for achievement differences between socioracial groups (Steele & Aronson, 1995; 1998). Steele and Aronson (1998) found that African American

students performed lower than White students on a test when participants were told that the results of the tested indicated level of intellectual ability. In the other study conditions, participants were told either that the test was a problem-solving task not used to indicate ability or that the test was simply a mental challenge for participants, again not used to determine ability level. In those two conditions, the performances of African American students and White students were not significantly different. Findings of a similar study (Steele and Aronson, 1998) revealed that when African American participants were told that the test was diagnostic of intellectual ability, negative stereotypes were activated, and participants showed doubts about their ability to perform well. In addition, African American participants in that condition were more likely to make excuses for their performance (e.g. did not sleep well the night before) and were more reluctant to reveal their race, as compared to White participants and to African American participants who were lead to believe that the test did not measure ability.

Some characteristics of the school environment have also been posited to contribute to the achievement gap. In particular, students from minority socioracial groups are more likely to attend schools that lack resources and that are unsupportive of students. Minority children tend to be placed in lower-level classrooms, and teachers may have lower expectations for students' academic potential. In an unchallenging, unsupportive environment such as this, students are unlikely to reach their full academic potential (Jencks & Phillips, 1998; Noguera, 2003).

Although these explanations of achievement differences are plausible and have received some empirical support, the question of why African American and Hispanic

students are lower achieving than their White peers (Gonzales et al., 1996; Jencks & Phillips, 1998) has no clear answer. Due to the fact that families and peers are widely recognized as influential developmental contexts for children and adolescents, an examination of family and peer influences on academic performance may contribute further to the understanding of such differences.

Family Influences on Adolescent Behavior

The impact of families on the development of children has been well investigated, and research has established that although the transition from childhood to adolescence is characterized by a shift toward autonomy and peer-orientation (Holmbeck, 1996), the family continues to play an important role in adolescent development (Astone & McLanahan, 1991; Baumrind, 1991; Glasgow et al., 1997; Melby & Conger, 1996; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). Family structure, SES parenting style, parent involvement, family cohesion, and family stress have all been found to influence adolescent social and emotional development and academic achievement (Baumrind, 1991; Chapell & Overton, 2002; Fehrmann et al., 1987; Forehand et al., 1998; Forehand et al., 1991; Georgiou, 1995; Griffith, 1996; Hickman et al., 1995; Keith et al., 1998; Maccoby & Martin, 1983; Mueller & Cooper, 1986).

Family Status

Family status variables including SES and family structure influence parenting practices (Ensminger & Slusarcick, 1992; Hickman et al., 1995; Keith et al., 1998) and play a role in the development and academic success of children and adolescents (Arnold & Doctoroff, 2003; Astone & McLanahan, 1991; Chappel & Overton, 2002; Ensminger

& Slusarcick, 1992; Mueller & Cooper, 1986). SES has been found to affect factors such as family cohesion and stress, level of parent involvement, parenting style, and academic achievement of children (Chapell & Overton, 2002; Ensminger & Slusarcick, 1992; Hickman et al., 1995; Keith et al., 1998).

Ensminger and Slusarcick (1992) found that students from low SES families in the early elementary grades were less likely than higher SES students to graduate from high school, and low SES children have higher rates of school failure (Arnold & Doctoroff, 2003). High SES students have been shown to have higher grades than low SES students and are more likely than low SES students to be enrolled in classes that involve higher-level reasoning (Chapell & Overton, 2002). Individuals from higher SES backgrounds also tend to have higher scores on standardized tests of achievement and cognitive ability (Suzuki & Valencia, 1997). Researchers posit that differences in academic outcomes for low versus high SES students may be due to factors such as higher levels of family stress, less educational support at home, and less parent involvement due to economic pressures; attending poor, lower quality schools; and having less access to educational resources (Chapell & Overton, 2002; Hickman et al., 1995; Keith et al., 1998).

Family structure has also been found to play a role in academic achievement (Astone & McLanahan, 1991; Mueller & Cooper, 1986). Research findings indicate that children from single parent families may have lower grade point averages (GPA), poor school attendance, and lower educational attainment when compared to children from two-parent homes (Astone & McLanahan, 1991; Mueller & Cooper, 1986). In general,

research suggests that differences in the achievement of children from single-parent families may primarily be due to lack of parental and economic resources (Astone & McLanahan, 1991; Mueller & Cooper, 1986). Single-parent families tend to have a lower SES, as compared to two-parent families, due to having only one income. In addition, limits on parents' time may affect the level of parent involvement and parental monitoring in single-parent homes (Astone & McLanahan, 1991; Mueller & Cooper, 1986).

Parenting Style

The impact of parenting style on various aspects of the development of children and adolescents has been well documented in the literature (e.g. Baumrind, 1991; Ginsburg & Bronstein, 1993; Glasgow et al., 1997; Lamborn et al., 1991; Maccoby & Martin, 1983; Palmer & Hollin, 1997; Paulson, 1994; Steinberg, Elmen, & Mounts, 1989). According to Darling and Steinberg (1993) parenting style can be defined as "a constellation of attitudes toward the child that are communicated to the child and that, taken together, create an emotional climate in which the parent's behaviors are expressed" (p. 488). Parenting styles encompass both specific parenting practices, such as discipline techniques used and involvement in children's school activities, and other behaviors, such as body language, tone of voice, and expression of emotion. Following a review of literature, Maccoby and Martin (1983) proposed that, for the most part, parents' behaviors along two dimensions, demandingness and responsiveness, place them in one of four primary parenting style categories: authoritative, authoritarian, permissive, or uninvolved.

Parenting Style Constellations

Authoritative. Authoritative parents are both highly responsive toward their children and highly demanding. They set firm limits and rules and expect children to follow those rules. Control is used, when necessary, to enforce rules and limits. Authoritative parents expect mature behavior and high academic achievement from their children. In addition to having high expectations, authoritative parents are warm and responsive to their children's needs. Children's individuality and independence is valued and fostered, and there is open communication, discussion, and negotiation between parents and children. Authoritative families tend to be well organized (Baumrind, 1991; Maccoby & Martin, 1983).

In an investigation of parenting style on adolescent outcomes, Baumrind (1991) described a Democratic style that is similar to authoritativeness. Parents using a democratic style are also highly responsive to their children. They are supportive, warm, and caring. The difference in this style is the level of parental demandingness. Democratic parents are less demanding and assertive than authoritative parents; however, outcomes for adolescents from authoritative and democratic families are similar.

Authoritarian. Parents who use an authoritarian style place high demands on their children, but are less supportive and responsive to children's needs. Authoritarian parents value order, respect for authority, and obedience. They set clear rules and may use severe punishment when rules are broken. Conformity is valued over independence and individuality, and verbal give and take between parent and child is discouraged.

Authoritarian parents tend to monitor their children closely and may be intrusive (Baumrind, 1991; Maccoby & Martin, 1983).

Permissive. Permissive parents are highly responsive but place few demands on their children. They set few limits and rules, avoid asserting authority, and do not expect mature behavior. Parents are warm towards children and allow self-regulation. Permissive families tend to be disorganized (Baumrind, 1991; Maccoby & Martin, 1983).

Uninvolved/neglectful. Parents who are uninvolved, or neglectful, place few demands on their children and are not responsive to children's needs. The families are characterized by disorganization, with little structure or limit setting. Uninvolved parents may reject their children and avoid childrearing duties (Baumrind, 1991; Maccoby & Martin, 1983).

Influences of Parenting Style on Adolescent Behavior

The impact of parenting styles on the development of children and adolescents has been well researched, and there is ample evidence that outcomes are most positive for children from authoritative families (Baumrind, 1991; Maccoby & Martin, 1983). Children and adolescents from authoritative homes have been found to be more competent, mature, self-regulated, and self-reliant than those from families using other parenting styles (Baumrind, 1991; Maccoby & Martin, 1983; Steinberg et al., 1989; Steinberg et al., 1994). They have higher self-esteem, better moral reasoning, are more likely to have functional attribution styles, and are more resilient (Baumrind, 1991; Glasgow et al., 1997; Palmer & Hollin, 1997). Additionally, these children are less likely to use drugs and alcohol and are less likely to be involved in other deviant behaviors

(Baumrind, 1991; Herman, Dornbusch, Herron, & Herting, 1997; Steinberg et al., 1994). There is some evidence that parenting practices associated with an authoritative style (e.g. parental warmth, shared decision making, discussion and reasoning, justification of use of control, avoidance of harsh punishment) may lead adolescents to consider their parents competent and influential, which may increase their willingness to accept parental values and comply with parents' wishes and demands (Baumrind, 1991; Henry, Wilson, & Peterson, 1989; Maccoby & Martin, 1983).

Authoritative parenting has also been positively associated with child and adolescent academic achievement. Students from authoritative families tend to have higher achievement motivation, educational expectations, and academic competence than students from other family styles (Baumrind, 1991; Herman et al., 1997; Lamborn et al., 1991). These students tend to have higher grades and achievement test scores as well (Baumrind, 1991; Ginsburg & Bronstein, 1993; Herman et al., 1997; Melby & Conger, 1996; Park & Bauer, 2002; Radziszewska, Richardson, Dent, & Flay, 1996).

Outcomes for children and adolescents reared in non-authoritative homes tend to be more negative. Overall, children from non-authoritative homes have lower educational expectations and are more likely to employ dysfunctional attributional styles to explain successes and failures (Glasgow et al., 1997).

Children from permissive homes fare better than peers with authoritarian or uninvolved parents, but compared to peers from authoritative homes, they are less competent and self-regulated, they lack impulse control and self-reliance, and they have

lower grades and achievement orientation (Baumrind, 1991; Glasgow et al, 1997; Maccoby & Martin, 1983).

Authoritarian parenting produces more negative outcomes than permissive parenting. Children reared in authoritarian homes tend to have low self-esteem, little autonomy and independence, and an external locus of control. These children seek adult approval and may have little social interaction with peers. In addition, they tend to exhibit higher levels of aggression and internalizing behavior problems. Authoritarian parenting is also associated with high levels of family conflict and lower academic achievement (Baumrind, 1991; DeBaryshe, Patterson, & Capaldi, 1993; Ginsburg & Bronstein, 1993; Maccoby & Martin, 1983; Radziszewska et al., 1996; Weiss & Schwarz, 1996).

Compared to peers from authoritative, permissive, and authoritarian homes, children and adolescents with uninvolved or neglectful parents have the most negative outcomes. They are immature, they lack self-regulation and emotional control, and they are impulsive (Maccoby & Martin, 1983). There is a high incidence of externalizing behavior problems, depressive symptoms, family conflict, and delinquent behavior, including drug and alcohol abuse (Palmer & Hollin, 1997; Radziszewska et al., 1996). These children are uninterested in school and tend to have the lowest educational expectations and poorest academic achievement compared to peers from other types of homes (Ginsburg & Bronstein, 1993; Glasgow et al., 1997; Radziszewska et al., 1996). Maccoby and Martin and Lamborn et al. (1991) reported that adolescents from uninvolved, neglectful homes may be more peer-oriented. They may become more

involved with peers at earlier ages and may be more influenced by peer attitudes and values.

In general, similar influences of parenting styles on children and adolescents have been reported across SES, family structure, and socioracial group; however, the research parenting style constellations are based on has been largely conducted with White, middle SES families. It is not surprising then that there is some evidence of racial differences in the effects of parenting style on child and adolescent outcomes. Dornbusch et al. (1987) found that although an authoritative style was associated with higher academic achievement across socioracial groups, the parenting typology the authors used to define parenting styles was more associated with achievement of White students than for students from other racial backgrounds.

Some research revealed that parenting style was not related to academic competence or achievement for African American adolescents (Steinberg et al., 1995; Steinberg et al., 1994; Steinberg, Lamborn, Dornbusch, & Darling, 1992). According to these authors, African American parents are likely to use an authoritative parenting style, to be involved in school activities, and to encourage their children's academic efforts—all factors generally associated with academic achievement. The authors suggest that the potential positive influences of these parents on their children's achievement may be undermined by peer influences. Similarly, Glasgow and colleagues (1997) reported that for Asian American students, authoritarian and neglectful parenting was associated with dysfunctional attributional styles, but educational outcomes were not lower as a result. It is possible that peer influence may buffer Asian American students from the negative

effects of authoritarian and neglectful parenting (Steinberg et al., 1995). More research is suggested to better understand racial differences in the effects of parenting style on academic performance.

In sum, parenting styles, and the specific parenting practices associated with them, affect outcomes of children and adolescents. The most positive emotional, behavioral, and academic outcomes have been found for children from authoritative families—families with high levels of parental warmth, responsiveness, involvement, and demandingness. A parenting practice commonly engaged in by authoritative parents is involvement in children's education (Baumrind, 1991). This practice of parent involvement may also influence children's educational outcomes.

Parent Involvement in Education

The positive impact of parents' involvement in their children's education has been well documented in the literature. Research has demonstrated a positive relationship between certain types of parent involvement and children's academic achievement (Fehrmann et al., 1987; Griffith, 1996; Grolnick & Slowiaczek, 1994; Hickman et al., 1995; Keith et al., 1998; Keith et al., 1986; Paulson, 1994; Sui-Chu & Willms, 1996).

Definitions of Parent Involvement

There is not one common definition of parent involvement used by all researchers (Griffith, 1996; Keith et al., 1998). Definitions of parent involvement used in research vary, but they are usually comprised of some combination of the following elements: parents' expectations, participation in school activities and in making educational decisions, home learning structure, and educational communication (Keith et al, 1998).

Some investigators may use only one or two of these elements to define parent involvement (e.g. Ginsburg & Bronstein, 1993; Griffith, 1996) while others may use all or most of them (e.g. Sui-Chu & Willms, 1996), none of them, or some combination of those elements with other elements not listed above. No consensus on how best to define parent involvement has been reached, but research suggests that it is a multidimensional construct that should be broadly defined (Grolnick & Slowiaczek, 1994; Keith et al., 1998).

Parent Involvement and Academic Achievement

A number of parent involvement factors have been associated with children's achievement. One such factor is educational discussion and communication. When parents talk to children about school and school activities, communicate their expectations, show interest in schoolwork, and discuss ways to deal with problems, children tend to have higher achievement. Discussion between parents and children of issues such as what children are learning at school, selection of courses in the upper grades, and school activities and events the child is interested in has been positively associated with educational aspirations (Trusty, 1999) and academic achievement (Keith et al., 1998; Paulson, 1994; Sui-Chu & Willms, 1996; Watkins, 1997).

Educational expectations that parents have for their children have also been associated with achievement. Research has shown a positive relationship between parents' educational aspirations and expectations and children's achievement. Parents who value achievement and have high expectations for their children have higher achieving children (Keith et al., 1998; Paulson, 1994; Seginer, 1983). In addition, parent

expectations may positively influence students' educational plans after high school (Fehrmann et al., 1987; Keith et al., 1986; Trusty, 1999).

Several types of home-based support of learning have been positively associated with children's achievement as well. Children from home environments where educational materials such as newspapers, books, and magazines are readily available, and where parents and children engage in cultural and educational activities such as discussion of current events, and visits to museums, libraries, lectures, and music performances tend to have higher educational motivation and, therefore, perform better in school than students who do not have a stimulating home environment (Grolnick & Slowiaczek, 1994). Other home-based factors such as monitoring and organizing children's time and activities, including time spent doing homework and helping with homework, have also been related to achievement (Fehrmann et al., 1987; Hickman et al., 1995; Sui-Chu & Willms, 1996).

There is some evidence of a negative relationship between parents' homework monitoring and children's achievement. Ginsburg and Bronstein (1993) found that the amount of time parents spent supervising homework, reminding children to complete homework, and helping them to complete it was negatively associated with student achievement. According to these authors, a high amount of parental monitoring may lead to the development of extrinsic, rather than intrinsic, achievement motivation, which may then result in poor academic performance.

Similar findings have been reported by Sui-Chu and Willms (1996) and Watkins (1997). Sui-Chu and Willms found a negative relationship between amount of

communication parents had with schools and child achievement. This finding was attributed to the fact that parents who have children with academic problems are likely to communicate with schools more frequently. Similarly, Watkins found that parents of low-achieving children were more likely to be involved than parents of high-achieving children. Due to this finding, the author proposed a bi-directional relationship between child achievement and parent involvement, depending on the definition of parent involvement that is used. It is possible, therefore, that the negative relationship between homework monitoring and achievement reported by Ginsburg and Bronstein (1993) is a result of parents spending more time involved in homework activities because their children are performing poorly in school. Further examination of homework supervision may be necessary in order to determine the most beneficial practices in this area.

Parents' participation in school activities has been positively associated with student achievement; however, this relationship has not been consistently supported in the literature. Some researchers have found that when parents participate in activities such as parent-teacher conferences, open houses, parent-teacher organization meetings, volunteering at the school, and going to activities that their children are involved in, students have higher achievement (Griffith, 1996; Grolnick & Slowiaczek, 1994; Paulson, 1994). In other research, this association has not been reported (Finn, 1998; Trusty, 1999).

Although existing research has generally found that parent involvement is associated with higher academic achievement of children, results have been somewhat inconsistent. These inconsistencies may be due to the fact that researchers have used

different definitions of parent involvement (Griffith, 1996; Keith et al., 1998). Inconsistencies may also occur because different investigators have used different measures of achievement. Some researchers use standardized achievement test scores as measures of achievement (e.g. Griffith, 1996; Keith et al., 1986) while others choose grades (e.g. Hickman et al., 1995; Keith et al., 1998; Paulson, 1994) or a combination of both (e.g. Ginsburg & Bronstein, 1993). According to the research literature, parent involvement may have greater effects on grades than on achievement test scores, possibly because students' effort can influence grades more easily (Keith et al., 1986). Grades also provide a more continuous measure of students' achievement, rather than a snapshot of their achievement at one point in time (Fehrmann et al., 1987). Due to these factors, grades have been suggested as the preferred measure of achievement for future research (Dornbusch et al., 1987; Griffith, 1996; Keith et al., 1986; Keith et al., 1998).

Parent Involvement and Family Demographics

Levels of parents' involvement have been found to vary according to family socioeconomic status (SES), racial background, and structure (i.e., intact, single-parent, step-parent). In general, findings have indicated that higher SES parents are more involved than lower SES parents (Hickman et al., 1995; Keith et al., 1998) and that parent involvement tends to be low in schools with a high percentage of low SES students, as compared to higher SES schools (Griffith, 1996). Several reasons for SES differences in level of parent involvement have been posited. Higher SES parents may have more free time and access to resources such as transportation and childcare, which makes involvement more feasible for them than it is for lower SES parents. In addition,

higher SES parents may be more familiar with the workings of schools and may, therefore, be more aware of the advantages of being involved and more comfortable interacting with school personnel (Griffith, 1996; Hickman et al., 1995; Keith et al., 1998).

Trusty (1999) reported an interaction between family SES and level of school-based involvement (e.g. communication with teachers). This finding was attributed to the possibility that low SES parents may be more likely to communicate with school personnel under negative circumstances, such as when children are experiencing academic or behavioral problems, and that involvement of high SES parents may be under more positive circumstances.

Although similar positive effects of parent involvement have been reported for students of various racial backgrounds, findings indicate that levels of parent involvement differ across racial groups (Fehrmann et al., 1987; Griffith, 1996; Keith et al., 1998; Keith et al., 1986; Sui-Chu & Willms, 1996; Watkins, 1997). Fehrmann et al. (1987) and Keith et al. (1986) found that level of parent involvement was higher for non-White families. Watkins and Sui-Chu and Willms reported higher levels of involvement by African American parents, and Keith et al. (1998) reported that White and Asian parents were less involved than African American and Hispanic parents. Griffith reported lower levels of school-based involvement in schools that had higher percentages of African American and Hispanic students. This is contrary to other findings in this area, and according to the author, the difference in level of involvement in this case may be due to SES rather than racial background.

Level of parent involvement may also vary according to family structure. In general, intact, two-parent families provide more involvement with school work, have higher educational aspirations and expectations, and are more interested in children's academic and school-related activities than single- or step-parent families. In single-parent families, parents and children spend more time engaged in conversation, but parents provide less general supervision. Differences between two-parent and single-parent families have been attributed to the probability that single parents have less time available to be involved with their children (Astone & McLanahan, 1991; Russell, 1997).

Family Cohesion and Stress

Investigations of family cohesion and stress have revealed that these factors may significantly impact child and adolescent adjustment in social, emotional, and academic areas (e.g. Forehand et al., 1998; Forehand et al., 1991; Franklin, 1992; Franklin & Streeter, 1992, 1995; Gehring, Wentzel, & Munson, 1990; Georgiou, 1995; Wentzel, 1994). According to family systems theory (Minuchin, 1985), cohesion is an important dimension of family relationships, and it is associated with positive family functioning (Barnes & Olson, 1985). Family cohesion is related to warm, positive family relationships characterized by low levels of hostility (Barnes & Olson, 1985). Cohesive families share a closeness, or bond. They tend to be supportive of family members, to enjoy and value spending time together, and to discuss important situations and decisions with family members.

Family cohesion has been related to positive outcomes for children and adolescents. For example, Georgiou (1995) found that as level of cohesion in the family

increased, adolescents' achievement increased, and Weist, Freedman, Paskewitz, Proescher, and Flaherty (1995) found that family cohesion may protect children against the effects of stress from sources outside the family. In an examination of middle and high SES high school dropouts, Franklin (1992) and Franklin and Streeter (1992, 1995) found that a majority of the students reported low or extremely low levels of cohesion in their families. Similarly, Vickers (1994) reported that children at-risk for academic failure had families with lower levels of cohesiveness than academically successful children. It is important to note that much of the research in this area is correlational; therefore, low family cohesion may result in adjustment problems for children and adolescents, or children's adjustment difficulties may lead to family stress, which may, in turn, lead to lower cohesion among family members (Gehring et al., 1990).

Exposure to various family stressors may have immediate and long-term detrimental effects on child and adolescent emotional and academic functioning, especially as the number of stressors increase (Forehand et al., 1998; Forehand et al., 1991). Parent-child and inter-parental conflict and relationship problems have been associated with low levels of family cohesion (Gehring et al., 1990), lower academic achievement for children and adolescents (Forehand et al., 1991; Sun & Li, 2001; Wentzel, 1994), and internalizing and externalizing behavior problems (Forehand et al., 1998; Forehand et al., 1991; Kerig, 1998). Other stressors associated with negative child and adolescent outcomes include maternal physical health problems and depression, parental divorce (Forehand et al., 1998; Forehand et al., 1991), family disorganization

(Shrivastava & Chandiramani, 1995), and the reduction of parental resources available in families that will eventually divorce (Sun & Li, 2001).

Research suggests that effects of family stress on child and adolescent academic functioning may be a result of stressed parents having fewer resources to devote to their children. They may be less available to supervise children, to monitor their schoolwork, and to communicate with children (Astone & McLanahan, 1991; Forehand et al., 1998; Sun & Li, 2001). Stressed parents may also resort to a more authoritarian parenting style, imposing strict rules and using harsh discipline (Forehand et al., 1998). There is some evidence that even if the level of parental resources available in stressed families is adequate, resources may have less of an effect on children's academic outcomes (Sun & Li, 2001). In addition, stressors and the internalizing and externalizing problem behaviors associated with family stress may distract students from schoolwork and lower academic performance (Forehand et al., 1998).

Peer Influences on Early Adolescent Behavior

In addition to family, peers have also been shown to influence the attitudes and behavior of children and adolescents. Early adolescents typically distance themselves, at least temporarily, from parents, and shift their attention to peer relationships (Giordano, Cernkovich, & DeMaris, 1993). They begin to spend more time with friends, and relationships with friends become closer and more supportive (Berndt, 1982, 1996; Berndt & Savin-Williams, 1993; Steinberg, 1986).

Early adolescents develop more positive perceptions of peer relationships than parental relationships (Lynch & Cicchetti, 1997). As peer relationships become more

important, peer influence on adolescents' behavior and attitudes increases (Berndt, 1996). Peers have been shown to influence deviant behaviors such as drug and alcohol use (Aseltine, 1995; Urberg et al., 1997) and school-related behaviors such as involvement in school activities and academic achievement (Berndt et al., 1990; Brown, Clasen et al., 1986; Brown, Lohr et al., 1986; Clasen & Brown, 1985).

Peer Relationships in Early Adolescence

As children move from childhood into adolescence, peer relationships become increasingly salient, and the structure of peer networks becomes more complex. Not only are they involved in dyadic relationships (i.e., best friends, dating couples), but in adolescence, they may also be members of cliques (i.e., small groups of close friends that spend time together) and crowds (i.e., large groups of adolescents similar in reputation or social status who do not necessarily spend time together) (Brown, 1989, 1990). They spend more time with peers, and more of that time is spent without adult supervision (Berndt, 1982; Steinberg, 1986). The nature of friendships in adolescence changes as well. Friendships become more intimate and supportive and are characterized by openness and self-disclosure (Berndt, 1982, 1996; Berndt & Savin-Williams, 1993).

With these changes in the nature and structure of peer relationships comes an increase in the influence that friends have on one another (Berndt, 1996). There is ample evidence in the literature of peer influence during adolescence (e.g. Berndt, 1979; Brown, Clasen et al., 1986; Brown, Lohr et al., 1986; Fordham & Ogbu, 1986; Kandel, 1978; Steinberg, 1986). According to Brown, Clasen et al. (1986), "Conformity to peers is often considered a hallmark of adolescent behavior" (p. 521). The mechanism through which

peers influence each other is known as peer pressure, or pressure from friends to think and act in certain peer-accepted ways (Clasen & Brown, 1985). In early to mid-adolescence, both the amount of pressure perceived and willingness to conform tends to increase, peaking at about ninth grade (Berndt, 1979; Brown, Clasen et al., 1986; Clasen & Brown, 1985).

Similarity of attitudes and behavior among adolescent friends is common. For example, Berndt (1982) found that pairs of friends reported similar academic aspirations and attitudes toward school, and had similar levels of academic achievement. Friends were also similar in their tastes in music and clothes and in degree of drug and alcohol use. Some research has investigated whether similarities are a result of selecting friends with similar attitudes and values rather than of friends influencing each other (Berndt, 1982; Kandel, 1978). Findings have revealed that adolescents may initially select a friend who is similar to them, but over time, friendship pairs become more similar. The increase in similarity indicates that friends do influence each other during the course of the relationship.

Much of the research has examined peer relationships of White adolescents. Relatively little is known about peer relationships of adolescents from other socioracial backgrounds (Giordano et al., 1993; Urberg, Degirmencioglu, Tolson, & Halliday-Scher, 1995), but there is some evidence of racial differences. For example, deCindio and colleagues (1983) found that African American students were less peer oriented and more oriented toward the family than White students. Dubois and Hirsch (1990) reported that when compared to White students, African American students had more friends outside

of school and talked to fewer students at school. In a study by Giordano and colleagues, African American students reported less intimacy in their friendships, less pressure to conform to peers, and a lower need for friends' approval. These findings suggest differences in the peer relationships of African American students that may affect the degree to which they are influenced by peers. Further research in this area is needed to investigate peer relationship differences for other racial groups.

Peer Influence on Deviant and School-Related Behaviors

According to Urberg and colleagues (1997), influence of peers is generally seen as a major contributor to adolescents' involvement in deviant behaviors. Brown, Clasen, and Eicher (1986) found that adolescents got older, they reported more pressure from friends to engage in deviant behaviors. Peers have been found to influence behaviors such as cigarette smoking, and alcohol and drug use (Aseltine, 1995; Urberg et al., 1997).

Although adolescents report pressure to be involved in deviant behavior, research indicates that peers are actually more likely to pressure others to be involved in positive, prosocial activities (Brown, Clasen et al., 1986; Brown, Lohr et al., 1986; Clasen & Brown, 1985). Adolescents may also be more willing to conform to pressures toward positive rather than deviant behavior (Berndt, 1979; Clasen & Brown, 1985). In particular, peers have been shown to influence adolescents' school-related attitudes and behaviors (e.g. Berndt et al., 1990; Brown, Clasen et al., 1986; Brown, Lohr et al., 1986; Clasen & Brown, 1985). Adolescents who perceive pressure from peers to be involved in school activities and to perform well in school generally conform to those pressures (Berndt et al., 1990; Brown, Lohr et al., 1986; Clasen & Brown, 1985).

For African American adolescents, there is some evidence that peers may encourage academic underachievement (Fordham & Ogbu, 1986; Gonzales, Cauce, Friedman, & Mason, 1996). In an ethnographic study of African American adolescents, Fordham and Ogbu found that some African American students perceived significant social pressure related to school performance. Achievement was viewed by African American adolescents as a value of White society, and as a result, they discouraged each other from performing well at school. These researchers suggest that this may also be true for other socioracial groups.

Relationship of Family and Peer Influences

Some of the research investigating family and peer influences has sought to answer the question of which has a greater effect on adolescent attitudes and behavior (e.g. Aseltine, 1995; Berndt, 1979). Findings indicate that peers may have more influence on adolescents' behavior, especially for African American and Asian American students (Aseltine, 1995; Berndt, 1979; Steinberg, Dornbusch et al., 1992). Such studies have considered families and peers as separate and antagonistic sources of influence; however, research suggests that they should be examined together, as interdependent factors (Brown & Huang, 1995).

Relationships between parenting and peer relations have been found. For example, Brown and colleagues (1993) found that parenting practices, including monitoring, encouraging achievement, and allowing adolescents to participate in decision-making, was associated with adolescents' behavior, and adolescents' behavior was associated with adolescents' peer crowd affiliation. Durbin, Darling, and Steinberg

(1993) found that adolescents from authoritative families were more likely to be associated with peer crowds that are oriented toward positive social interactions, mature behavior, and academic achievement. Adolescents with uninvolved or permissive parents were more likely to be involved with crowds that are more oriented toward peer-valued behavior such as drug use and alcohol consumption. These researchers contend that parents steer adolescents toward particular peer crowds. Through parenting practices, parents influence adolescent attitudes and behaviors, and adolescents seek peers with similar attitudes and behaviors. The association between parenting style and peer crowd membership has not been found for African American and Asian American students. This may be due to the fact that minority adolescents are restricted in their choice of peer crowd (Steinberg, Dornbusch et al., 1992).

Similarly, Dekovic and Meeus (1997) found that parenting practices such as acceptance, involvement, responsiveness, and monitoring—practices associated with an authoritative parenting style—were positively associated with satisfying peer relationships for adolescents. For mothers, parenting practices were related to adolescent self-concept, and self-concept was related to positive peer relationships. For fathers, the effect of parenting practices on peer relationships was direct.

Parenting practices have also been related to level of adolescent peer orientation. For example, adolescents with parents who are controlling and power assertive, and who do not allow joint decision-making—common practices for authoritarian parents—may be more oriented toward peer values and more likely to seek advice from peers (Fuligini

& Eccles, 1993). Likewise, Lamborn and colleagues (1991) found that adolescents from neglectful homes were more peer oriented as well.

Other investigators have found that peer influences may moderate the effects of parenting practices (e.g. Brown & Huang, 1995; Mounts & Steinberg, 1995; Steinberg, Dornbusch et al., 1992). Brown and Huang found that the influence of positive parenting was magnified by positive peer influences and that the effects of negative parenting were made worse by negative peer influences. Similarly, Mounts and Steinberg reported that when adolescents from authoritative families had friends who performed well in school, the positive influence of parenting on their academic achievement was enhanced.

Steinberg, Dornbusch, and Brown (1992) also reported that peer influences moderated the relationship between parent influences and adolescents' achievement. In addition, they found racial differences between family and peer influences on school performance of adolescents. For example, as discussed previously, African American adolescents tended to have parents who used authoritative parenting practices and encouraged school performance and peers who did not value achievement. For these students, peer influence was more salient than parenting, as evidenced by their poor academic performance. Similarly, Asian American students had authoritarian, uninvolved parents, but these students tended to have friends that valued and encouraged achievement. Again, peers had more influence than parents, as Asian Americans were high achievers.

In summary, families and peers impact the development and academic achievement of adolescents. The relationships between family and peer influences, racial

differences in the influence of family and peers on adolescent achievement, and the mechanisms by which these factors influence achievement are not clearly understood. It is hypothesized that peer behaviors and attitudes have more influence than parent behaviors on academic achievement before racial background is taken into account. When racial differences are examined, peer influences are expected to moderate the relationship between family influences and adolescent academic achievement.

Chapter 3: RESEARCH STUDY

Statement of Purpose

The purpose of this study was to investigate the effect of family and peer influences on academic achievement during early adolescence. Differences between socioracial groups were also explored. The study examined the impact of peers and family, separately and together, in order to determine whether a comparative influence model (i.e., whether either peer or family influences have a greater impact on student achievement) or a moderation model (i.e., whether peer influences affect the relation of family influences to achievement or vice versa) better explains the role of family and peer influences on adolescents' academic achievement. This investigation allows for a better understanding of how contexts outside of the classroom affect the school performance of adolescents from diverse socioracial backgrounds.

Both models were expected to be supported for the overall sample. Close friends' attitudes and behavior were expected to be more predictive of student grades than family attitudes and behavior. Peer influence was expected to moderate the relationship between family influence and student grades. When testing individual racial group samples, support for a moderation model was expected for African American students but not for White students and Hispanic students.

Questions and Hypotheses

Research Question 1

Is there a unique effect of family influences on student achievement, adjusting for peer influences?

Hypothesis 1

Family influences will have a unique effect on students' self-reported grades.

Rationale

Although peer relationships play an increasingly important role in adolescence (Berndt, 1982, 1996; Steinberg, 1986), there is ample evidence that the family continues to affect adolescent functioning, including academic achievement. In previous research, parenting style, parent involvement, and family stress and cohesion have all been associated with the academic performance of adolescents (Baumrind, 1991; Forehand et al., 1998; Gehring et al., 1990; Georgiou, 1995; Keith et al., 1998; Paulson, 1994); therefore, it can be hypothesized that these family factors will also be associated with the achievement of the adolescents in this study.

Research Question 2

Is there a unique effect of peer influences on student achievement, adjusting for family influences?

Hypothesis 2

Peer influences will have a unique effect on students' self-reported grades.

Rationale

As children move into adolescence, peer relationships become closer and more salient than relationships during the earlier childhood years. With this increase in the importance of peer relationships comes an increase in the ability of peers to influence each other in various domains, including academic achievement (Berndt, 1982, 1996; Steinberg, 1986). Research has consistently revealed a relationship between peer attitudes and behaviors and adolescents' academic performance (Berndt et al., 1990; Brown, Clasen et al., 1986; Brown, Lohr et al., 1986; Clasen & Brown, 1985). It is likely then that peer attitudes and behaviors will be associated with students' achievement in this study as well.

Research Question 3

Is the effect of peer and family influences on student achievement the same across racial groups?

Hypothesis 3

The effect of peer and family influences on self-reported grades will be the same for all racial groups.

Rationale

The question of whether the influences of family or peers are the same across racial groups has not been adequately examined in the research. African American adolescents have reported less pressure than White adolescents to conform to peers and

less need for approval from friends (Giordano et al., 1993). They have also been described as more family oriented and less peer oriented than White adolescents (deCindio et al., 1983). On the contrary, although parenting style has been associated with academic achievement of White and Hispanic students, this association has not been found for African American or Asian American students. It has been proposed that peers may undermine positive parenting for African American students and buffer Asian American students from the effects of uninvolved, authoritarian parenting (Steinberg, Dornbusch et al., 1992; Steinberg et al., 1994; Steinberg, Lamborn et al., 1992). In general, influence of peers on achievement appears to be greater than family influence for adolescents, regardless of racial background (Berndt, 1979; Steinberg, Dornbusch et al., 1992). Replication of this finding is expected in this study.

Research Question 4

Does peer influence moderate the relationship between family influence and student achievement for each racial group?

Hypothesis 4

a. Peer influence will moderate the relationship between family influence and self-reported grades for African American students.
b. Peer influence will not moderate the relationship between family influence and self-reported grades for White or Hispanic students.

Rationale

Though research in this area is limited, there is some evidence that peer influence may moderate the relationship between family influences and adolescents' academic

achievement. Positive peer influences have been found to magnify the effects of positive parenting and to buffer some students from the effects of negative parenting. Likewise, negative peer influences have been found to undermine the effects of positive parenting (Brown & Huang, 1995; Mounts & Steinberg, 1995; Steinberg, Dornbusch et al., 1992). Racial differences in this moderation model of influence have been reported. Specifically, peer influences reportedly moderated the relationship between parenting and academic achievement for African American and Asian American students. This association was not found for Hispanic or White students (Steinberg, Dornbusch et al., 1992). In the current study, the moderation model of peer influence is expected for African American participants, but not for Hispanic or White participants.

Method

Participants

Participants for this study were drawn from a sample of approximately 2,500 students attending four public middle schools in Austin, Texas. Data were collected for all students in attendance on the day of survey administration. For the present study, only data from Hispanic, African American, and White students were analyzed because the number of students from other racial backgrounds was small. The resulting sample included 2,202 participants who were in sixth (36%), seventh (32%), or eighth (32%) grade. Fifty percent of the participants were male, and 50 percent were female. Forty-seven percent of participants were Hispanic (n=1026), 30 percent were White (n=684), and 22 percent were African American (n=492).

Procedure

Approval by the human subjects committee. This study has complied with the ethical standards and standards of research established by the American Psychological Association and the University of Texas at Austin. Research materials were submitted and approved by the Institutional Review Board of the University of Texas at Austin for all data collection.

Approval by the school district. In order to obtain approval, materials outlining the proposed study were presented to the administration of the Austin Independent School District prior to data collection. Consent was also obtained from the principal at each school.

Recruitment of participants. Passive parental consent and active participant consent were obtained. Prior to data collection, letters were sent home to parents via each student explaining the study and asking parents to return the letter if they did not want their child to participate. In addition, information about the study and consent was provided in the school newsletter that was sent home to parents. Only a small percentage of parents (less than 1%) withheld permission (Carlson, 1999; Carlson & Lein, 1998). Research suggests that the use of passive, rather than active, parental consent may be beneficial for research on family functioning. Active consent procedures increase the likelihood that only adolescents from well-functioning, involved families will be represented in the sample. Passive parental consent increases the probability of participation by adolescents with adjustment difficulties and problematic family relations (Lamborn et al., 1991; Weinberger, Tublin, Ford, & Feldman, 1990).

Active participant consent was obtained prior to data collection. All students in attendance on the day of survey administration were invited to complete two surveys. A small percentage of students (approximately 3%) indicated that they did not wish to participate (Carlson, 1999; Carlson & Lein, 1998). Students who chose not to participate were given alternative work by the classroom teacher.

Data collection. A self-report questionnaire measuring multiple domains of adolescent functioning and environment was administered in each classroom by university graduate students. Classroom teachers aided in survey administration when necessary. Participants received a pencil and folder with the university logo as a reward for survey completion.

Measures

Data for this study were obtained from a self-report questionnaire developed by Carlson and Lein (1998). The 1997 version of the questionnaire is presented in Appendix A. The questionnaire is comprised of scales developed by the authors and existing published measures. It includes measures of parenting style and family stress, close friends' behavior, students' self-reported grades, and family background information including race, family structure, and level of parental educational attainment.

Student background. Background information including family structure, race, and parental educational attainment was obtained from survey items. For family structure, each student was asked to indicate whether they live with their father and mother, mother only, mother and stepfather, father only, father and stepmother, grandparents or other relatives, or foster parents or unrelated guardians. For the purposes

of this study, students living with father only and those living with father and stepmother were combined into one group due to the small number of participants in these two categories. In addition, participants living with grandparents, other relatives, foster parents, or unrelated guardians were grouped together to form an *Other* category.

Students also provided information about their racial backgrounds. They were asked to designate one socioracial group that best described them. The eight possible choices included: 1) Hispanic, Latino, Mexican American; 2) Black or African American; 3) White or Anglo; 4) Asian or Asian American; 5) Native American; 6) Multiracial; 7) Mexican; or 8) Other. Terms chosen to describe socioracial groups were based on preferences of the students and teachers from the schools where the questionnaire was administered (Carlson & Lein, 1998). For this study, the terms used to describe socioracial categories were abbreviated in order to facilitate writing. The terms Hispanic, African American, and White were used, as they are acceptable according to the Publication Manual of the American Psychological Association (APA, 2001). Only data from Hispanic students (including Latino, Mexican American, and Mexican students), African American students, and White students were analyzed in this study because the number of students from other racial categories was small.

Students provided information about the highest level of education attained by each of their parents or guardians. Response choices included: 1-*elementary*, 2-*some high school*, 3-*high school*, 4-*some college,* and 5-*college graduate*. For this study, educational attainment was used as an estimate of family socioeconomic status (SES). Due to the small size of the groups, the *elementary* and *some high school* groups were combined to

make a single group for those who had not finished high school. Educational attainment data were collected for both parents; however, for the purposes of this study, only data from the parent with the highest level of educational attainment were considered. Parent education level has previously been associated with parenting behaviors and child outcomes and has been used to estimate SES in similar studies (Carlson, Uppal, & Prosser, 2000; Lamborn et al., 1991).

Family influences. The impact of parenting styles and family environment on adolescents' academic achievement has been well documented in the literature (Baumrind, 1991; Fehrmann et al., 1987; Forehand et al., 1998; Forehand et al., 1991; Georgiou, 1995; Griffith, 1996; Hickman et al., 1995; Keith et al., 1998; Maccoby & Martin, 1983). In the current study, parenting style and family environment were assessed using survey items adapted by Carlson and Lein (1998). Students used a four-point Likert-type scale (Never, Sometimes, Often, Always) to rate how well 28 survey items dealing with family influences described their families. Factor analysis of the items revealed three factors (Carlson, 1999; Carlson & Lein, 1998). Two of the factors, Monitoring and Acceptance/Involvement are consistent with the major components of authoritative parenting defined by Maccoby and Martin (1983). The Monitoring scale (alpha=.83) is made up of nine items, and the Acceptance/Involvement scale (alpha=.87) is made up of eight items. The third factor was Family Stress. This scale (alpha=.74) is comprised of nine items. Items for each family influence scale are presented in Appendix B.

Peer influences. Peers have also been shown to influence adolescents' academic achievement (Berndt et al., 1990; Brown, Clasen et al., 1986; Brown, Lohr et al., 1986; Clasen & Brown, 1985). In the current study, peer influences were assessed using 16 items concerning close friends' behavior. Students responded to the question, *How many of your close friends do these behaviors regularly*, using a four-point Likert scale ranging from 0 to 3 (None, Some, Many, All). Factor analysis of the items yielded two factors: Self-Destructive Peer Influence and Self-Enhancing Peer Influence (Carlson, 1999; Carlson & Lein, 1998). The Self-Destructive Peer Influence scale (alpha=.84) is made up of ten items, and the Self-Enhancing Peer Influence scale (alpha=.77) is made up of six items. Items included in the peer influence scales are listed in Appendix C.

Adolescent achievement. Achievement was measured using students' self-reported grades. Students were asked to indicate what grades they usually get in school using a Likert-type scale ranging from 1–*mostly As (90s)* to 4–*mostly Fs (60s and lower).* For the purposes of this study, the scale was reversed (i.e., 1–*mostly Fs* to 4–*mostly As*). Prior research has indicated that adolescents with lower grades (C and below) may have a slight tendency to inflate grade reports, but that self-reported grades are highly correlated with actual grades (Dornbusch et al., 1987). Although grades may be more subjective than standardized achievement tests, grades may provide a better measure of students' achievement over time (Fehrmann et al., 1987) and have been recommended by previous research as the preferred measure for assessing the effects of parenting on academic achievement (Griffith, 1996; Keith et al., 1998).

Data Analysis

Preliminary Analyses

Analysis of variance (ANOVA) and chi-square (X^2) analysis were used to examine possible differences between racial groups in SES, family structure, self-reported grades, parental monitoring, parent involvement, family stress, self-enhancing peer influences, and self-destructive peer influences. In addition, analysis of missing data was completed on the variables used in this study. Missing data were analyzed using X^2 and *t*-tests in order to determine the impact on study findings.

Test of Research Question 1

In order to assess the effect of family influences on student achievement, hierarchical multiple regression analysis was used. The covariates SES and Family Structure (FS) were entered together in Step 1 of the model. Race [Hispanic (R_1), African American (R_2), White (R_3)] was also entered as a covariate in Step 1 to control for possible racial differences. The peer influence variables Self-enhancing peer influences (PI_1) and Self-destructive peer influences (PI_2) were entered together in Step 2, and the three family influence variables Parental monitoring (FI_1), Parent acceptance/ involvement (FI_2), and Family stress (FI_3) were entered in Step 3. Change in R^2 at Step 3 was examined for significance. A statistically significant change in R^2 indicated that the family influence variables had a unique effect on achievement when the influence of SES, family structure, race, and peer influences were taken into account.

Model 1:	*Step 1*	*Step 2*	*Step 3*
Achievement =	SES + FS Race	PI (2 variables) +	FI (3 variables)

Test of Research Question 2

Hierarchical multiple regression analysis was used to assess the relation between peer influences and student achievement as well. The covariates SES and Family Structure (FS) were entered together in Step 1 of the model. As in the first model, Race was also entered in Step 1 as a covariate. The three family influence variables Parental monitoring (FI_1), Parent acceptance/involvement (FI_2), and Family stress (FI_3) were entered together in Step 2, and the peer influence variables Self-enhancing peer influence (PI_1) and Self-destructive peer influence (PI_2) were entered in Step 3. Change in R^2 at Step 3 was examined for significance. A significant change in R^2 indicated that the peer influence variables had a unique effect on achievement after the effects of the covariates and family influence variables were taken into account.

Model 2:	*Step 1*	*Step 2*	*Step 3*
Achievement =	SES + FS Race	FI (3 variables) +	PI (2 variables)

Test of Research Question 3

To address the question of whether the differential effect of peer and family influences on students' grades is the same regardless of racial background, hierarchical multiple regression analysis was used. As in the first two models, the covariates SES and

Family Structure (FS), Race were entered together in Step 1 of the model. The three family influence variables Parental monitoring (FI_1), Parent acceptance/involvement (FI_2), and Family stress (FI_3) and the peer influence variables Self-enhancing peer influence (PI_1) and Self-destructive peer influence (PI_2) were entered together in Step 2. In Step 3, the interactions between race and the family influence variables and between race and the peer influence variables were entered. F tests were calculated and examined for significance at the .05 level. Then, t tests were computed for each predictor and examined for significance.

Model 3:	*Step 1*		*Step 2*		*Step 3*
Achievement=	SES	+	PI	+	FI_1xR_1
	FS		FI		FI_1xR_2
	Race				FI_2xR_1
					FI_2xR_2
					FI_3xR_1
					FI_3xR_2
					PI_1xR_1
					PI_1xR_2
					PI_2xR_1
					PI_2xR_2

Test of Research Question 4

In order to determine whether peer influences moderated the relationship between family influences and student achievement, hierarchical multiple regression analysis was used. The covariates SES and Family structure (FS) were entered together in Step 1 of the model. Race [Hispanic (R_1), African American (R_2), White (R_3)] was also entered in Step 1. The peer influence variables Self-enhancing peer influence (PI_1) and Self-destructive peer influence (PI_2) and the three family influence variables Parental monitoring (FI_1),

Parent acceptance/involvement (FI_2), and Family stress (FI_3) were entered together in Step 2. In Step 3, the interactions between all family and peer variables, between race and peer variables, and between race and family variables were entered. In Step 4, PI x FI x Race interactions were entered. This model was also used to determine whether this moderation is found across socioracial groups. F tests were calculated and examined for significance at the .05 level, and t tests were computed for each predictor.

Model 4:

	Step 1		*Step 2*		*Step 3*		*Step 4*	
Achievement=	SES	+	PI	+	PI_1xFI_1	+	PI_1xFI_1	
	FS		FI		PI_1xFI_2		PI_1xFI_2	
	Race				PI_1xFI_3		PI_1xFI_3	x R1
					PI_2xFI_1		PI_2xFI_1	
					PI_2xFI_2		PI_2xFI_2	
					PI_2xFI_3		PI_2xFI_3	
					PI_1xR_1		PI_1xFI_1	
					PI_1xR_2		PI_1xFI_2	
					PI_2xR_1		PI_1xFI_3	x R2
					PI_2xR_2		PI_2xFI_1	
							PI_2xFI_2	
					FI_1xR_1		PI_2xFI_3	
					FI_1xR_2			
					FI_2xR_1			
					FI_2xR_2			
					FI_3xR_1			
					FI_3xR_2			

Chapter 4: RESULTS

Results reported here include descriptive analyses of socioracial groups, analysis of missing data, and the tests of Hypotheses 1 through 4. First, one-way analyses of variance (ANOVA) and chi-square (X^2) analyses were used to examine differences between racial groups in SES, family structure, self-reported grades, parental monitoring, parent involvement, family stress, self-enhancing peer influences, and self-destructive peer influences. Next, missing data were analyzed using X^2 and *t*-tests to determine whether there was a relation between participant characteristics and failure to provide complete data. Finally, hierarchical multiple regression analysis was used to determine whether family and peer influences have unique effects on students' achievement (Hypotheses 1 and 2), whether there were differential effects of peer and family influences on achievement between racial groups (Hypothesis 3), and whether peer influences moderated the effect of family influences on student achievement (Hypothesis 4). Results are reported by hypothesis.

Preliminary Analyses

Descriptive Analysis

Socioracial groups were compared in order to determine whether there were differences between groups in SES, family structure, self-reported grades, parental monitoring, parent involvement, family stress, self-enhancing peer influences, or self-destructive peer influences. Chi-square (X^2) analyses revealed a significant association between race and self-reported grades [X^2 (6)=145.3, p<.001]. Results indicated that White students (31%) were more likely to report making mostly <u>A</u>s as compared to

African American (18%) and Hispanic students (12%). Compared to White (0.7%) and African American (0.9%) students, Hispanic students (4%) were more likely to report failing grades.

Significant associations between race and SES, as measured by highest level of parents' educational attainment [X^2 (8)=681.2, p<.001], and between race and family structure were found as well [X^2 (8)=180.7, p<.001]. Results revealed that 75 percent of White adolescents have one parent who is a college graduate, compared to 41 percent of African American and 19 percent of Hispanic adolescents. In addition, Hispanic students (27%) were more likely than African American (3%) or White (2%) students to have a parent who did not complete high school. White (62%) and Hispanic (53%) adolescents were more likely than African Americans (26%) to live in intact families, and African American adolescents (39%) were more likely to live in households headed by single mothers, as compared to Hispanic (25%) and White (21%) students.

Results of ANOVAs comparing socioracial groups on each of the family and peer influence variables are presented in Table 1. Findings revealed significant differences between groups in parent involvement, parental monitoring, and family stress, and in self-enhancing and self-destructive peer influences. Post hoc comparisons indicated that African American students reported higher levels of parent involvement and family stress than White or Hispanic students, and that Hispanic adolescents had higher family stress than White adolescents. Hispanic students reported lower parental monitoring as compared to White and African American students. Comparisons of peer influences indicated that African American and White students reported more self-enhancing peer

behaviors than Hispanic students. Hispanic students were more likely than African American or White students to have peers that engage in self-destructive behaviors, and African American students reported more self-destructive peer behaviors as compared to White students.

Table 1

Between Group Comparisons of Family and Peer Influence Variables

	Hispanic (G1)		African American (G2)		White (G3)			
Measure	M	SD	M	SD	M	SD	F	Comparisons
Parent Involvement	1.9	.70	2.1	.70	1.9	.67	9.54***	G2>G1, G3
Parental Monitoring	1.9	.64	2.1	.65	2.1	.60	28.4***	G2, G3>G1
Family Stress	.62	.53	.72	.62	.52	.43	19.6***	G2>G1, G3; G1>G3
Self-Enhancing Peer Behavior	1.3	.61	1.7	.62	1.6	.61	85.4***	G2, G3>G1
Self-Destructive Peer Behavior	.77	.55	.71	.49	.46	.44	82.3***	G1>G2, G3; G2>G3

*=p <.05; **=p <.01; ***=p <.001

Analysis of Missing Data

Approximately 14 percent of the 2,202 participants in this study were missing some data on the variables used in this study. Missing data were analyzed using X^2 and *t*-tests in order to determine whether failure to provide complete data was associated with participant characteristics. Findings revealed significant associations between missing data and family structure [X^2 (4)=9.60, p<.05] and between missing data and race [X^2 (2)=30.99, p<.01]. Adolescents from two-parent, intact families were less likely than students from other family structures to have missing data, and White students were less likely than African American or Hispanic students to have incomplete data. In addition, students with higher levels of parental monitoring, parent involvement, and self-enhancing peers were more likely to have complete data. Students reporting greater family stress and self-destructive peer behavior were more likely to have some missing data. Although some significant differences were found between individuals who provided complete data versus those who did not, the resulting sample size is large enough to be considered representative of the population sampled and to have sufficient statistical power.

Tests of Hypotheses

Test of Hypothesis 1

Hypothesis 1 predicted that family influences will have a unique effect on students' academic achievement, as measured by self-reported grades, after adjusting for peer influences. Results of the hierarchical multiple regression analysis are reported in Table 2. Results indicated that a significant portion of the variance in achievement was

accounted for by the covariates race, family structure, and SES (ΔR^2 =.10, p<.001). As predicted, after controlling for the effects of race, family structure, SES, and peer influence, family influence variables (i.e., parental monitoring, parent involvement, and family stress) had a unique effect on academic achievement (ΔR^2 =.02, p<.001). Approximately two percent of the variance in students' self-reported grades was predicted by family influence. When the individual predictors in the model were examined for significance, only parental monitoring (t =4.3, p<.001) and family stress (t = -2.8, p<.05) were found to be significantly associated with students' achievement.

Table 2

Summary of Model 1

Model 1	**b**	**beta**	ΔR^2
Step 1			.10***
African American v. White comparison	-.066	-.036	
Hispanic v. White comparison	-.221***	-.146	
Parent high school graduate v. Parent not high school graduate comparison	.049	.029	
Parent some college v. Parent not high school graduate comparison	-.022	-.012	
Parent college graduate v. Parent not high school graduate comparison	.115*	.075	
Mother only v. Mother+father family structure comparison	-.133**	-.078	
Mother+stepfather v. Mother+father family structure comparison	-.144*	-.052	

Father only & father+stepmother v. Mother+father family structure comparison	-.184*	-.051	
Other family structure v. Mother+father family structure comparison	-.208*	-.056	
Step 2			.08***
Self-destructive peer behavior	-.177***	-.122	
Self-enhancing peer behavior	.199***	.168	
Step 3			.02***
Parental monitoring	.146***	.119	
Parent involvement	-.015	-.014	
Family stress	-.096**	-.065	

*= p<.05, **=p<.01, ***=p<.001

Test of Hypothesis 2

Hypothesis 2 predicted that peer influences will have a unique effect on students' academic achievement, as measured by self-reported grades, after adjusting for family influences. Results of the hierarchical multiple regression analysis are reported in Table 3. As predicted in Hypothesis 2, results revealed that after controlling for the effects of SES, family structure, race, and family influence, peer influence variables (i.e., self-enhancing peer behavior, and self-destructive peer behavior) had a unique effect on academic achievement (ΔR^2 =.04, p<.001). Approximately four percent of the variance in students' achievement was predicted by peer influence. An examination of the significance of individual predictors in the model indicated that both self-enhancing peer

behavior (t =-5.17, p<.001) and self-destructive peer behavior (t =6.8, p<.001) were significantly associated with students' achievement. When compared to family influence (parental monitoring, parent involvement, and family stress), peer influences explained twice the amount of variance in academic achievement.

Table 3

Summary of Model 2

Model 2	**b**	**beta**	ΔR^2
Step 1			.10***
African American v. White comparison	-.066	-.036	
Hispanic v. White comparison	-.221***	-.146	
Parent high school graduate v. Parent not high school graduate comparison	.049	.029	
Parent some college v. Parent not high school graduate comparison	-.022	-.012	
Parent college graduate v. Parent not high school graduate comparison	.115*	.075	
Mother only v. Mother+father family structure comparison	-.133**	-.078	
Mother+stepfather v. Mother+father family structure comparison	-.114*	-.052	
Father only & father+stepmother v. Mother+father family structure comparison	-.184*	-.051	
Other family structure v. Mother+father family structure comparison	-.208*	-.056	

Step 2			.05***
Parental monitoring	.146***	.119	
Parent involvement	-.015	-.014	
Family stress	-.096**	-.065	
Step 3			.04***
Self-destructive peer behavior	-.177***	-.122	
Self-enhancing peer behavior	.199***	.168	

*= p<.05, **=p<.01, ***=p<.001

Test of Hypothesis 3

Hypothesis 3 predicted that the effect of peer and family influences on self-reported grades will be the same for all racial groups. Results of the hierarchical multiple regression are reported in Table 4. As predicted in Hypothesis 3, the results indicated that for the overall model, the influence of peers and families on students' academic achievement is the same, regardless of racial background (ΔR^2=.01, n.s.).

Table 4

Summary of Model 3

Model 3	**b**	**beta**	ΔR^2
Step 1			.10***
African American v. White comparison	-.068	-.036	
Hispanic v. White comparison	-.220***	-.145	
Parent high school graduate v. Parent not high school graduate comparison	.049	.028	

Parent some college v. Parent not high school graduate comparison	-.022	-.011	
Parent college graduate v. Parent not high school graduate comparison	.119*	.078	
Mother only v. Mother+father family structure comparison	-.125**	-.073	
Mother+stepfather v. Mother+father family structure comparison	-.105*	-.048	
Father only & father+stepmother v. Mother+father family structure comparison	-.187*	-.052	
Other family structure v. Mother+father family structure comparison	-.204*	-.055	
Step 2			.09***
Parental monitoring	.035	.029	
Parent involvement	.054	.049	
Family stress	-.098	-.066	
Self-destruct peer behavior	-.226**	-.156	
Self-enhancing peer behavior	.219***	.185	
Step 3			.01
Interaction between Hispanic v. White comparison & parental monitoring	.151	.086	
Interaction between African American v. White comparison & parental monitoring	.145	.056	
Interaction between Hispanic v. White comparison & parent involvement	-.049	-.030	
Interaction between African American v. White comparison & parental involvement	-.209*	-.089	

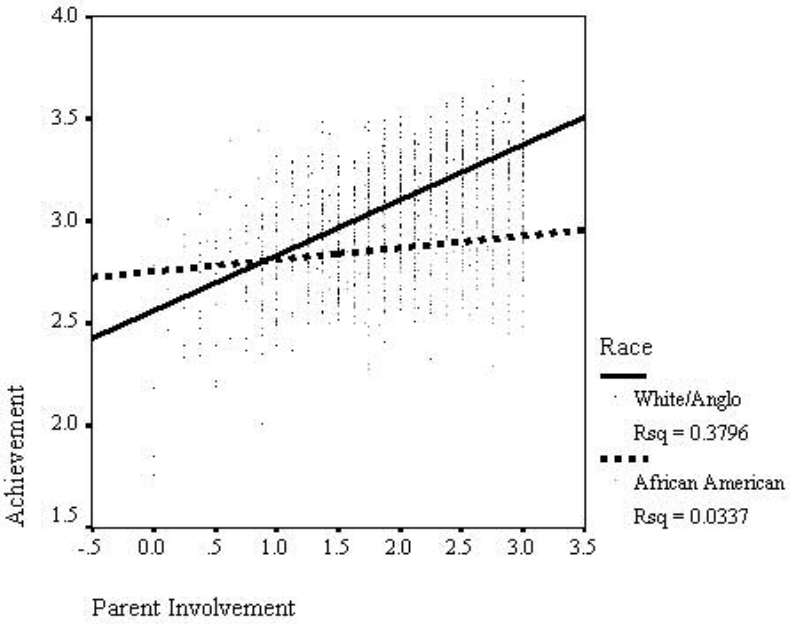
Interaction between Hispanic v. White comparison & family stress	-.017	-.007
Interaction between African American v. White comparison & family stress	.019	.007
Interaction between Hispanic v. White comparison & self-destructive peer behavior	.014	.007
Interaction between African American v. White comparison & self-destructive peer behavior	.211*	.063
Interaction between Hispanic v. White comparison & self-enhancing peer behavior	-.061	-.034
Interaction between Hispanic v. White comparison & self-enhancing peer behavior	.010	.004

*= p<.05, **=p<.01, ***=p<.001

When *t*-tests were performed for each predictor in the model, significant differences between African American and White students were found in the influence of parent involvement on achievement ($t=-2.43$, $p<.05$). No significant differences were found between Hispanic and White students. A graph of the regression lines showing the relation between level of parent involvement and achievement for African American and White students is presented in Figure 1. Results showed a positive association between parent involvement and achievement for both African American and White students; however, compared to White students, achievement of African Americans is not as strongly related to parent involvement.

Figure 1

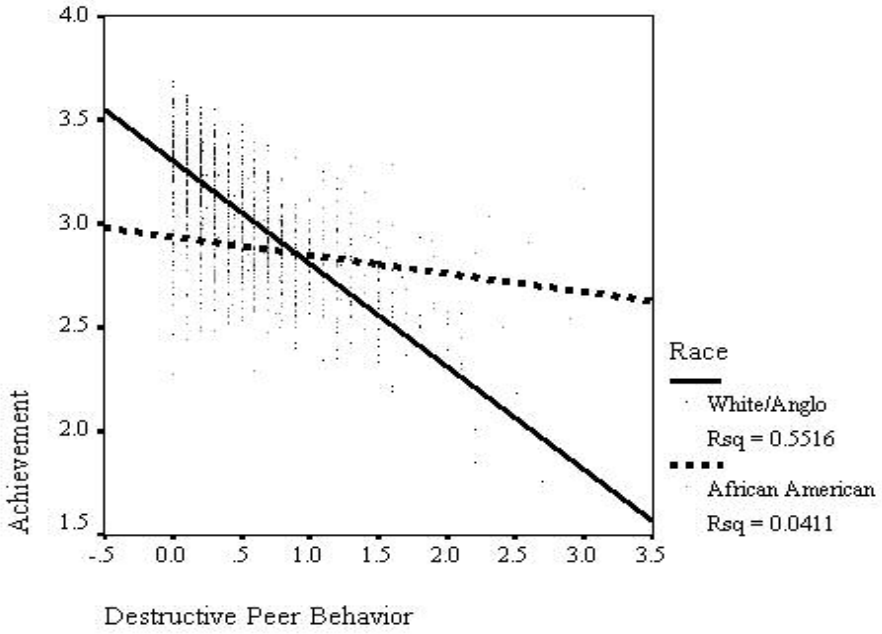
Relationship Between Parent Involvement and Achievement of African American and White Students



In addition, a significant difference between African American and White students in the relation of achievement to self-destructive peer behavior ($t=2.01$, $p<.05$) was found. A graph of the regression lines showing this relationship is presented in Figure 2. As indicated by the results, there is a negative association between self-destructive peer behavior for both African American and White students. In comparison to White students, the relationship between self-destructive peer behavior and academic achievement of African American students is not as strong.

Figure 2

Relationship Between Destructive Peer Behavior and Achievement of African American and White Students



Test of Hypothesis 4

In Hypothesis 4a, it was predicted that peer influence would moderate the effect of family influence on achievement, as measured by self-reported grades, for African American students. Hypothesis 4b predicted that peer influence would not moderate the effect of family influence on achievement for White or Hispanic students. Results of the hierarchical multiple regression analysis are presented in Table 5.

Table 5

Summary of Model 4

Model 4	b	beta	ΔR^2
Step 1			.10***
African American v. White comparison	-.086	-.046	
Hispanic v. White comparison	-.233***	-.154	
Parent high school graduate v. Parent not high school graduate comparison	.049	.028	
Parent some college v. Parent not high school graduate comparison	-.025	-.013	
Parent college graduate v. Parent not high school graduate comparison	.118*	.077	
Mother only v. Mother+father family structure comparison	-.118**	-.069	
Mother+stepfather v. Mother+father family structure comparison	-.094	-.043	
Father only & father+stepmother v. Mother+father family structure comparison	-.161*	-.045	
Other family structure v. Mother+father family structure comparison	-.193*	-.052	
Step 2			.09***
Parental monitoring	.046	.038	
Parent involvement	.066	.060	
Family stress	-.099	-.067	
Self-destruct peer behavior	-.182*	-.125	
Self-enhancing peer behavior	.233***	.196	

Step 3			.02**
Interaction between Hispanic v. White comparison & parental monitoring	.078	.086	
Interaction between African American v. White comparison & parental monitoring	.188	.056	
Interaction between Hispanic v. White comparison & parent involvement	-.059	-.030	
Interaction between African American v. White comparison & parental involvement	-.247**	-.089	
Interaction between Hispanic v. White comparison & family stress	-.080	-.007	
Interaction between African American v. White comparison & family stress	.008	.007	
Interaction between Hispanic v. White comparison & self-destructive peer behavior	-.022	.007	
Interaction between African American v. White comparison & self-destructive peer behavior	.102	.063	
Interaction between Hispanic v. White comparison & self-enhancing peer behavior	-.077	-.034	
Interaction between Hispanic v. White comparison & self-enhancing peer behavior	.015	.004	
Interaction between self-destructive peer behavior & parental monitoring	.115	.056	
Interaction between self-destructive peer behavior & parent involvement	.082	.041	
Interaction between self-destructive peer behavior & family stress	.051	.023	

Interaction between self-enhancing peer behavior & family stress	.040	.019	
Interaction between self-enhancing peer behavior & parent involvement	.052	.032	
Interaction between self-enhancing peer behavior & parental monitoring	-.029	-.016	
Step 4			.01
Interaction between self-enhancing peer behavior, parental monitoring, & African American v. White comparison	-.351*	-.095	
Interaction between self-enhancing peer behavior, parent involvement, & African American v. White comparison	.132	.039	
Interaction between self-enhancing peer behavior, family stress, & African American v. White comparison	-.141	-.041	
Interaction between self-destructive peer behavior, family stress, & African American v. White comparison	.146	.039	
Interaction between self-destructive peer behavior, parent involvement, & African American v. White comparison	-.222	-.044	
Interaction between self-enhancing peer behavior, parental monitoring, & African American v. White comparison	.009	.002	
Interaction between self-enhancing peer behavior, parental monitoring, & Hispanic v. White comparison	-.054	-.021	
Interaction between self-enhancing peer behavior, parent involvement, & Hispanic v. White comparison	-.084	-.031	

Interaction between self-enhancing peer behavior, family stress, & Hispanic v. White comparison	.083	.027
Interaction between self-destructive peer behavior, family stress, & Hispanic v. White comparison	-.094	-.028
Interaction between self-destructive peer behavior, parent involvement, & Hispanic v. White comparison	-.019	-.008
Interaction between self-enhancing peer behavior, parental monitoring, & Hispanic v. White comparison	-.139	-.058

*= p<.05, **=p<.01, ***=p<.001

T-tests of the individual predictors in the model revealed a significant interaction between self-enhancing peer behavior and parental monitoring for African American students compared to White students (t=-2.27, p<.05). Means of self reported grades for each group are shown in Figure 3, and graphs of the regression lines showing the interaction are presented in Figure 4.

Parental monitoring and self-enhancing peer behavior were positively related to academic achievement, regardless of students' racial backgrounds, but as predicted in Hypothesis 4a, self-enhancing peer behavior moderated the effect of parental monitoring on achievement for African American students. African Americans with low parental monitoring but high self-enhancing peer behavior performed as well academically as African American students who reported high parental monitoring and high self-enhancing peer behavior.

In addition, for African American students, parental monitoring was found to moderate the effect of self-enhancing peer behavior on achievement. Grades of African American students who reported having few self-enhancing peer influences but high parental monitoring were approximately the same as grades of students who had both high monitoring and a high level of self-enhancing peer influence.

As predicted in Hypothesis 4b, no significant interactions between peer and family influences were found for White or Hispanic students, indicating that peer influences did not moderate family influences on achievement for those students.

Figure 3

Comparison of Mean Achievement for White and African American Students with High and Low Parental Monitoring and Self-Enhancing Peer Influences

White Students

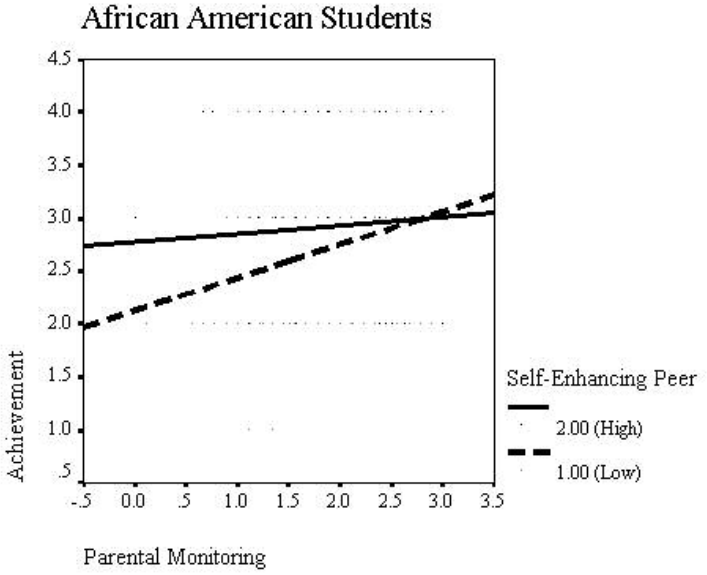
Self-Enhancing Peer Behavior	Parental Monitoring: Low	Parental Monitoring: High
Low	2.72	2.83
High	3.09	3.29

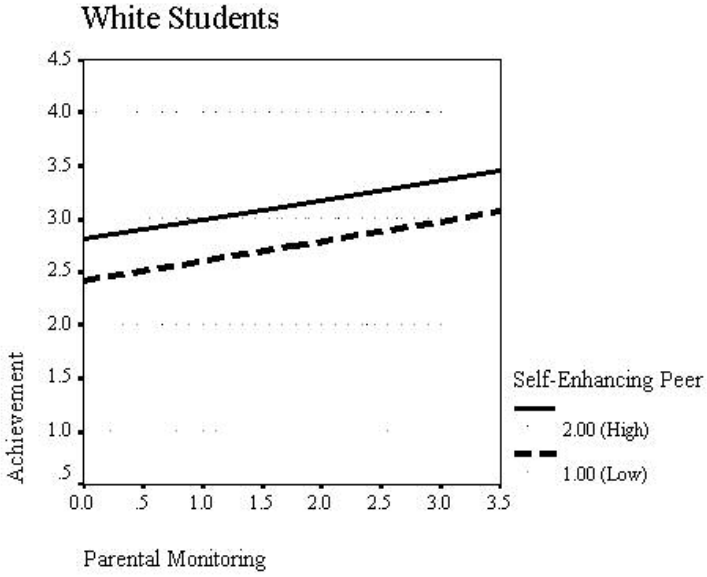
African America Students

Self-Enhancing Peer Behavior	Parental Monitoring: Low	Parental Monitoring: High
Low	2.55	2.96
High	2.85	3.00

Figure 4

Comparison of the Relation Between Self-Enhancing Peer Behavior and Parental Monitoring for African American Students Vs. White Students





Chapter 5: DISCUSSION

The purpose of the present study was to examine the effect of family and peer influences on academic achievement of students in early adolescence. Specifically, the influences of peers and families were investigated separately and together in order to determine whether a comparative influence or a moderation model better explains the impact of peers and families on student achievement. In addition, differences in parent and family influences between socioracial groups were explored. The goal of this study was to better understand how peers and families influence the achievement of adolescents from diverse racial backgrounds. In this chapter, results from the current study are examined and discussed with regard to previous research. Limitations of the study are discussed and implications for theory, research, and practice are presented.

All hypotheses were supported, at least in part, by study results. As predicted in Hypotheses 1 and 2, family influences (i.e., parental monitoring, parent involvement, and family stress) had a unique effect on adolescents' academic achievement after the effects of peer influence, family structure, SES, and race were taken into account, and peer influences (i.e., self-destructive peer behaviors and self-enhancing peer behaviors) had a unique effect on academic achievement after the effects of family influences, family structure, SES, and race were considered. In addition, peer influences were found to account for approximately twice the amount of variance compared to family influences. In Hypothesis 3, peer and family influences were predicted to have a similar degree of association with achievement across racial groups. Findings indicated support for this hypothesis; however, an examination of the individual predictors in the model revealed a

significant interaction between race and the influence of parent involvement on achievement. A significant interaction between race and the influence of self-destructive peer behavior on achievement was found as well. These findings indicated that when African American students were compared to White students, the influences of parent involvement and self-destructive peer behavior on achievement were significantly different.

As predicted in Hypothesis 4a, peer influences moderated that effect of family influences on achievement of African American students. Specifically, a significant interaction was found between self-enhancing peer behavior and parental monitoring for African American students compared to White students. For African Americans, the effect of parental monitoring on students' academic achievement was moderated by self-enhancing peer behavior. Parental monitoring and self-enhancing peer behavior were positively related to achievement for all students, but for African American students, having friends who engage in high levels of positive, self-enhancing behaviors protected them from the negative effects of low parental monitoring on achievement. In addition, parental monitoring appeared to moderate the effect of self-enhancing peer behavior on achievement for African American students. This finding, which was not predicted, indicated that, for African Americans, parental monitoring acted as a protective factor against the potential negative effects of having few positive peer influences.

Hypothesis 4b predicted that that peer influence would not moderate the relationship between family influence and academic achievement for White or Hispanic students. Results revealed support for the prediction, as no significant interactions were

found. Thus, it appears that for African American students, having either positive peer influences or high parental monitoring is related to higher achievement. In comparison, for White and Hispanic students, higher achievement was related to having both high monitoring and high levels of positive peer influence.

Overall, the results of this study revealed several key findings. First, a comparative influence model was supported for the effect of peers and families on adolescents' achievement. Next, a distinctive pattern of peer and family influence emerged for African American students compared to their White and Hispanic peers. Finally, differences between socioracial groups in achievement were found. Each of these findings, including their implications for theory, research, and practice will be discussed.

Comparative Influence Model

Overall, a comparative influence model of the effect of peers and families on adolescent achievement was supported. Results of this study indicated that both family and peer factors played a role in the academic performance of African American, White, and Hispanic students during early adolescence; however, compared to family influences, peer behaviors exerted more influence on achievement. This finding is consistent with previous research. Although peer factors were found to be relatively more influential than families, it is important to note that peer and family influences together accounted for only about six percent of the variance in student achievement, indicating that there are other more influential factors that contribute to achievement.

As in the current study, previous investigations of peer and parent influence on adolescent behavior, including academic performance, have revealed that adolescents may be more readily influenced by peers (Aseltine, 1995; Berndt, 1979; Steinberg, Dornbusch et al., 1992). Children typically distance themselves temporarily from parents during early adolescence. They tend to spend less time with parents, and they may reject parental ideals and values (Giordano et al., 1993). At this time, peer relationships become more intimate and important, and adolescents may place more value on friends' attitudes and behaviors than on the attitudes and behaviors of their parents (Berndt, 1982, 1986; Steinberg, 1986). They are also likely to experience increased pressure to conform to peers, rather than parents (Berndt, 1979; Brown, Clasen et al., 1986; Clasen & Brown, 1985). Previous research has indicated that pressure to conform to peers, and adolescents' willingness to conform, tends to increase during early adolescence, peaking around ninth grade (Berndt, 1979; Brown, Clasen et al., 1986; Clasen & Brown, 1985). It is not surprising then that peer behaviors and attitudes were relatively more influential than parents' behaviors and attitudes on the academic achievement of the middle school-aged participants in this study.

Although research in the area of adolescent development suggests that early adolescents distance themselves from parents and become increasingly influenced by peers (Aseltine, 1995; Berndt, 1979; Giordano et al., 1993; Steinberg, 1986; Steinberg, Dornbusch et al., 1992), current findings suggest that the family continues to play a role in academic performance. Specifically, family factors including parental monitoring (e.g.

knowing whether or not the child is doing homework, who the child's friends are, where he or she goes after school, etc.), which is associated with parenting style, and family stress (e.g. high levels of conflict and violence in the family, family separation, lack of financial resources, etc.) were found to influence achievement. Current results support previous findings that parenting style factors and family stress are associated with the academic performance of adolescents (Baumrind, 1991; Forehand et al., 1998; Gehring et al., 1990; Georgiou, 1995).

Although numerous parent involvement factors have previously been linked to adolescents' academic performance (Keith et al., 1998; Paulson, 1994; Sui-Chu & Willms, 1996; Watkins, 1997), parent involvement, as measured in this study, was not significantly related to academic achievement. In the current study, parent involvement was defined as emotional involvement of parents, indicated by factors such as getting along with family members, doing activities together, supporting one another, and talking about problems together. Definitions of parent involvement in previous studies have varied widely, but most have focused on some aspect of educational involvement (e.g., educational expectations, communication with school, parental participation in school activities, participation in educational decisions) (Griffith, 1996; Grolnick & Slowiaczek, 1994; Keith et al., 1998); therefore, the lack of significance found here may be due to the difference in the way in which the construct of parent involvement was defined.

Distinctive Pattern of Influence for African American Students

Research in this area is very limited, but current results support previous findings of racial differences in the relation of peer and family influences and their effects on achievement (Steinberg, Dornbusch et al., 1992). When racial differences in the influence of family and peers on achievement were explored, findings indicated that, in general, families and peers exerted similar influences across socioracial groups; however, some differences between African American and White students were found. First, the influence of parent involvement on achievement was significantly different for African American students when compared to White students. In particular, there was positive association between parent involvement and academic achievement for both White and African American students; however, when compared to White students, achievement of African Americans was not as strongly related to parent involvement. Although previous research has found similar positive effects of parent involvement on the achievement of students from all socioracial backgrounds (Fehrmann et al., 1987; Griffith, 1996; Keith et al., 1998; Keith et al., 1986; Sui-Chu & Willms, 1996; Watkins, 1997), current findings suggest that compared to White peers, parent involvement may not play as important a role in the academic success of African American adolescents. Again, this inconsistency between current and previous findings may be due to the use of different definitions of parent involvement.

In addition, a difference between African American and White students was found in the relationship between academic achievement and self-destructive peer behavior (e.g. using alcohol and drugs, skipping school, fighting, dropping out, etc.). Findings indicated

a significant negative relationship between self-destructive peer behavior and academic achievement for both White and African American students, but the relationship between negative peer behavior and achievement was significantly different for African American as compared to White students. The academic achievement of African American adolescents was not as strongly influenced by negative peer behavior compared to White adolescents. Previous research has indicated that, compared to White adolescents, African American adolescents may be less peer oriented, have less need to conform to peers, and be less likely to seek peer approval (deCindio et al., 1983; Giordano et al., 1993). Findings of the current study provide further evidence to support that assertion.

Although a comparative model of peer and family influence on achievement was supported for the overall sample, the investigation of possible racial differences yielded some support for a moderation model for African American students. Whereas self-enhancing peer behavior (e.g. studying hard, doing homework, getting good grades, being active in school activities, etc.) and parental monitoring were both positively related to academic achievement of students from all socioracial backgrounds, for African Americans, the relationship between parental monitoring and academic achievement was determined by the level of self-enhancing peer behavior. Self-enhancing peer influence served as a buffer against potential negative effects of low parental monitoring on achievement. In addition, parental monitoring appeared to buffer against the negative effects of having few positive peer influences. It appears, therefore, that for the African American participants in this study, having either parents who closely monitor them or numerous positive peer influences increased the likelihood of high achievement. In

comparison, for White and Hispanic students, those with both positive peer influences and parental monitoring were the highest achievers.

Although there are numerous investigations of how families impact adolescents' by influencing their choice of friends (e.g., Brown et al., 1993; Durbin et al., 1993; Fuligini & Eccles, 1993; Lamborn et al., 1991), few studies have actually investigated the interaction of peer and family influences. Previous research that has examined the potential interaction of family and peer influences, considering them as interdependent factors rather than as separate sources of influence, revealed findings similar to those of the current study. For example, Steinberg, Dornbusch, and Brown (1992) found that peer influences moderated the effect of family influences on the achievement of African American students and Asian American students. The authors reported that negative peer influences undermined the effects of positive parenting for African American adolescents and that positive peer influences buffered Asian American students from the effects of negative parenting practices. There is not currently a clear understanding of why a moderation model is supported for African American students only; therefore, further investigation is needed in order to fully explain these findings (Steinberg, Dornbusch et al., 1992).

Socioracial Differences in Achievement

Another finding of significance in the current study is that academic achievement of participants, as measured by self-reported grades, was significantly different across the socioracial groups. White students had significantly higher grades than African American and Hispanic students, and Hispanic students were more likely than other participants to

report failing grades. Results are consistent with previous research, which has found that the achievement of African American and Hispanic students is lower that of their White peers (Jencks & Phillips, 1998; Neisser, 1986). This difference in achievement has yet to be fully explained; however, results of the current study revealed some factors that may contribute to achievement differences between socioracial groups.

White students were found to have several advantages over Hispanic and African American students, which may have contributed to a greater likelihood of academic success. For example, White students were more likely than African American or Hispanic students to live in an intact, two-parent family and to have a parent who graduated from college, both family characteristics that have been linked to more positive educational outcomes for children (Astone & McLanahan, 1991; Chappel & Overton, 2002; Ensminger & Slusarcick, 1992; Mueller & Cooper, 1986). In addition, compared to White students, African American and Hispanic students had higher levels of family stress and were more likely than White students to have peers that engage in self-destructive behaviors, both factors that were associated with poor achievement. African American and White students, compared to Hispanic students, were more likely to report positive peer influences and higher levels of parental monitoring, which were positively related to achievement. Overall, it appeared that when compared to their White peers, Hispanic and African American students were more likely to have environmental, family, and peer influences that may affect achievement negatively and may put them at risk for academic failure.

Implications for Theory, Research, and Practice

Findings of the current study provide information about how factors outside the classroom impact adolescents' learning and academic performance at school and provide several implications for theory, research, and the practice of school psychology. Much of the literature addressing the achievement gap between White students and students from minority backgrounds has centered on cultural explanations for underachievement. Although the cultural explanations certainly seem plausible and have received some empirical support, the current study identified other environmental factors that provide further explanation as to why the achievement of students from minority groups may lag behind the achievement of their White peers. Specifically, being more likely to have a low SES background, to live in a non-intact family, to have higher levels of family stress, and to have friends that engage in self-destructive behaviors appear to place African American and Hispanic students at a disadvantage academically.

Disadvantages such as these may contribute to academic failure, which may then contribute to the development of negative attitudes about academic ability, and therefore, to placing less importance on school in order to protect oneself from experiencing failure in a significant area of life. Current findings contribute to the understanding of how low expectations for the future and decreased importance in education posited by oppositional culture (Ainsworth-Darnell & Downey, 1998; Griffin, 2002; Ogbu, 1992) and stereotype threat (Griffin, 2002; Steele, 1997; Steele & Aronson, 1998) explanations may develop. Thus, an important implication of current findings is that environmental factors may

partially explain the development of low academic confidence and disengagement from school that has been found in students with minority racial backgrounds.

The current study also contributes to further understanding of adolescent development and how the contexts of families and peer relationships contribute to adolescents' academic performance. Results of the study are consistent with previous developmental research, which contends that attitudes and behaviors of friends may be more influential than family relationships during early adolescence (e.g. Berndt, 1979; Berndt, 1996; Brown, Clasen et al., 1986). Nevertheless, family was still found to be an important factor contributing to adolescents' academic success.

In previous research, peer and family factors have often been examined as separate, antagonistic sources of influence. The intention of such research has been to discover whether family or friends have a greater effect during adolescence (Aseltine, 1995; Berndt, 1979). The current study supports previous research (Brown & Huang, 1995; Mounts & Steinberg, 1995; Steinberg, Dornbusch et al., 1992) in suggesting that it may be more appropriate to examine family and peer influences together—to examine the relationship between those sources of influence in order to get a better understanding of how they work together to influence adolescents' development. Although the current study contributes to the understanding of how peer and family factors influence academic achievement, more research in this area is needed to further explain how various development contexts interact to impact academic performance.

Another contribution made by this investigation is its examination of racial differences in the influence of family and peers. Racial differences in peer and family

influences have rarely been investigated in research; therefore, there is not a clear understanding of how families and friends impact adolescents from diverse racial backgrounds. This study supports the findings of previous research, which suggest that there may be differential effects of peer and family influence on achievement depending on adolescents' racial background (e.g. deCindio et al., 1983, Dubois & Hirsch, 1990; Glasgow et al., 1997) and that racial background should be considered when determining sources of influence on achievement.

The current study also has implications for training and practice in school psychology. Results provide a better understanding of how developmental contexts outside of school, such as families, peers, culture, and race, contribute to academic performance of middle school students. In addition, there is evidence that there are differences in how those contexts affect children of different socioracial backgrounds. Thus, findings support the need for training in multicultural issues in order to help developing psychologists understand the impact of race and culture on children's development and how cultural and racial factors may impact therapy and assessment. Increased understanding and awareness of sources of influence outside the classroom that affect achievement may contribute to more informed, appropriate assessment of academic difficulty and to the design of more appropriate interventions. In addition, results indicate that prosocial peer relationships provide a positive influence on adolescent development. Based on that information, practitioners can assist adolescents in developing peer relationships that may lead to positive developmental outcomes.

Limitations of the Current Study

The present study provides some information regarding the influences of peers and families on the academic achievement of adolescents from diverse socioracial backgrounds; however, there are several limitations to be addressed. First, the validity of the measures of family and peer influence variables has not been adequately determined. As previously discussed, the scales were developed by survey authors (Carlson & Lein, 1998) based on literature in the areas of parenting style, family cohesion and stress, and peer influences. In addition, factor analysis was conducted in order to determine which items would be included in the scales; however, these scales have not been compared to other, more established measures that are purported to measure the same constructs. It is possible, therefore, that scales used in this study may not be valid measures of parent and peer influences.

Next, self-reported grades were used as the measure of academic achievement for all analyses. Although prior research has found that self-reported grades correlate highly with actual grades, there is also some evidence that adolescents with grades of C or below may inflate grade reports (Dornbusch et al., 1987). Based on the fact that students may have misreported their overall grades, findings of this study should be interpreted with caution. Future studies in this area should use actual grades of participants as the measure of achievement, if possible.

The use of racial category labels is also problematic. Participants did self-report the racial group to which they felt that they belonged; however, as previously discussed, caution should be used in interpreting findings based on the use of socioracial category labels (Phinney, 1996). Membership in a particular racial group is often assumed to be associated with certain characteristics, and those characteristics are often not directly assessed (Betancourt & Lopez, 1993). Previous research has indicated that socioracial groups are often heterogeneous and that, therefore, any differences between groups cannot be explained by race alone (Phinney, 1996). In this study, socioracial group labels were used to describe participants and to explore differences, but characteristics of the participants in each socioracial groups were not assessed. It has been suggested that future research in this area should assess participants on a number of characteristics such as level of acculturation, strength of family affiliation, interdependence versus independence, etc. (Phinney, 1996). This type of analysis will allow researchers to determine how different or alike members of socioracial groups are and whether the assumptions that are typically made are accurate.

In addition, approximately 14 percent of the 2,202 participants had some missing data. Analysis of that missing data indicated that adolescents from more stressed, less involved families and those with more negative peer influences were less likely to have completed the full questionnaire, which indicates that there may be some bias in this sample. Several procedures were employed, however, to ensure that all students had an opportunity to complete the questionnaire and to encourage participation by students who may not be likely to participate in a study outside of school. Participants were allowed to

ask questions if they did not understand the survey material, and participants with reading difficulties had the survey administered to them orally. In order to increase the probability of participation of adolescents with adjustment difficulties and problematic family relationships, passive, rather than active, parental consent was used. In previous research, active parental consent procedures have been associated with an increased likelihood that only adolescents from well-functioning, involved families would participate (Lamborn et al., 1991; Weinberger et al., 1990). In the present study, less than one percent of parents withheld permission (Carlson, 1999; Carlson & Lein, 1998). Although it is important to keep in mind that some participants may be under represented in this sample, only a small portion of cases had missing data. The resulting sample size is large enough to provide adequate statistical power and to be considered representative of the population sampled.

The questionnaire distributed to participants in this study was quite lengthy, and it covered a variety of topics and information (see Appendix A for a copy of the complete questionnaire). As a result, some students chose not to fill it out completely, possibly due to fatigue. Much of the information collected was not relevant to the present study. In the future, researchers may wish to use questionnaires that are briefer and that only contain information relevant to the area of study in order to avoid losing data.

Another limitation of this study is that the impact of the school environment on achievement was not considered. Family and peer influences account for only a small proportion of the variance in achievement, indicating that there are other factors that contribute to achievement, and the climate of the school is likely to be one of those

factors. In addition, school factors may impact peer and family influences, as the school climate may determine the peer influences available to students and may act to reinforce or override parenting. In future research, it would be beneficial to include analysis of the impact of schools on children's academic functioning in order to get a more complete understanding of factors affecting achievement.

Finally, all of the findings in this study are correlational, and therefore, no causal assumptions can be made about the relationships between achievement and family and peer factors. While significant relationships between family and peer influences and achievement were found, there is no information about the direction of those relationships. The potential impact of achievement on family factors and peer relationships was not considered.

Conclusions

In summary, findings from this study provide some information about how contexts including culture, school environment, family environment, and peer relationships impact the academic performance of adolescents from different socioracial backgrounds. As predicted, family influences and peer influences had unique effects on academic achievement. In addition, as expected, peer influences were found to account for more of the variance in achievement when compared to the family influences. Some factors such as parental monitoring, family stress, and self-enhancing peer behavior appeared to influence students of all socioracial backgrounds similarly; however, parents' emotional involvement and self-destructive peer behavior appeared to affect the achievement of African American students differently. In addition, peer influences

moderated the relationship between parental monitoring and achievement for African American students, but not for White or Hispanic students.

Research in the area of socioracial group differences in peer and family influences on achievement and of how peer and family factors work together to influence achievement is very limited, but current findings support the previous findings that exist. Although there are some limitations, this study has made a contribution to the understanding of how developmental contexts outside the classroom affect the academic performance of adolescents, which may inform practitioners and school personnel in the design and implementation of assessment and academic interventions. These relationships between the various influences on achievement do appear to be complicated and require further investigation in order to fully understand how they affect students in the classroom.

Appendix A: 1997 Fulmore Survey

YOUR BACKGROUND

1. Are you a boy or a girl? (Check one) Girl ___ Boy___

2. What grade are you in? (Check one) 6th___ 7th___ 8th___

3. How old are you? (Write in age) _____

4. Which language is **most**often **spoken in your home**? (Check one)
   English _____
   Spanish _____
   Both Spanish and English _____
   Other (Write in) _____

5. Which language do **you** speak most often? (Check one)
   English _____
   Spanish _____
   Both Spanish and English _____
   Other (Write in) _____

6. Were you born in the United States? (Circle one)

Yes No

If yes, please skip questions 7 and 8 and go to question 9.

7. Were you born in Mexico? (Circle one)

Yes No

8. How old were you when you left the country where you were born? (Circle one)

(a)	(b)	(c)	(d)	(e)
Younger than 5 years old	5-8 years old	9-11 years old	12-16 years old	16+ years old

9. Everyone who lives in the U. S. is an American, but we come from different backgrounds. Which description best fits **your** background? (Circle one)

(a) Hispanic, Latino, or Mexican-American

(b) Black or African American

(c) White or Anglo

(d) Asian or Asian American

(e) Native American

(f) Multiracial

(g) Mexican

(h) Other (Write in) _____

10. Which description best fits your family?

I live with my: (Circle one)

(a) Father and Mother

(b) Mother only

(c) Mother and Stepfather

(d) Father only

(e) Father and Stepmother

(f) Grandparents or other relatives

(g) Foster parents or unrelated guardian

11. Please complete the following about your **mother** and **father** or **guardian(s)**:

	Father or Guardian	**Mother or Guardian**
a) **Highest level of education?** (Circle one)	1. Elementary 2. Some high school 3. High School 4. Some college 5. College graduate	1. Elementary 2. Some high school 3. High School 4. Some college 5. College graduate
b) **Currently employed or working?** (Circle one)	1. Yes 2. No	1. Yes 2. No

COMING TO FULMORE

1. Which elementary school did you attend before coming to middle school? (Circle one)

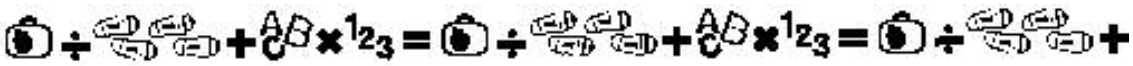
a) Galindo	b) Dawson	c) Travis Heights	d) Linder	e) Other _____ (write in)

2. How would you describe the **change** from elementary to middle school? (Circle one)

(a) Very Hard	(b) Pretty Hard	(c) Medium	(d) Pretty Easy	(e) Very Easy

3. How has the **school work** at middle school been compared to the school work at elementary school? (Circle one)

(a) Very Hard	(b) Pretty Hard	(c) Medium	(d) Pretty Easy	(e) Very Easy



4. If you had to pick the **one** thing that was **<u>hardest</u>** for you in making the change from elementary school to middle school, what would it be? (Check one)

___Making Friends

___School Work

___Fighting

___Safety

___School Rules

___Class Schedule

___School Facilities (e.g., lockers, cafeteria)

___Other (Write in)_____

5. If you had to pick the **one** thing that was **<u>easiest</u>** for you in making the change from elementary school to middle school, what would it be? (Check one)

___Making Friends

___School Work

___Fighting

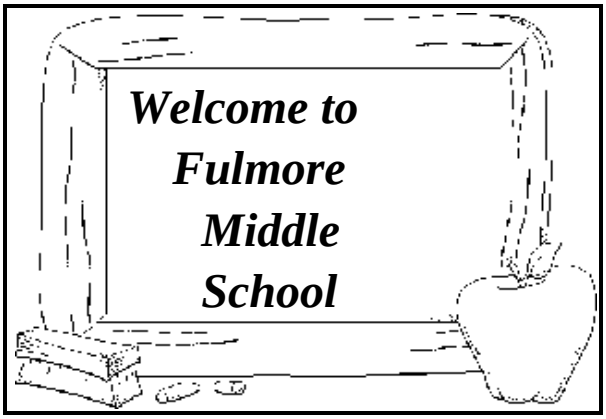
___Safety

___School Rules

___Class Schedule

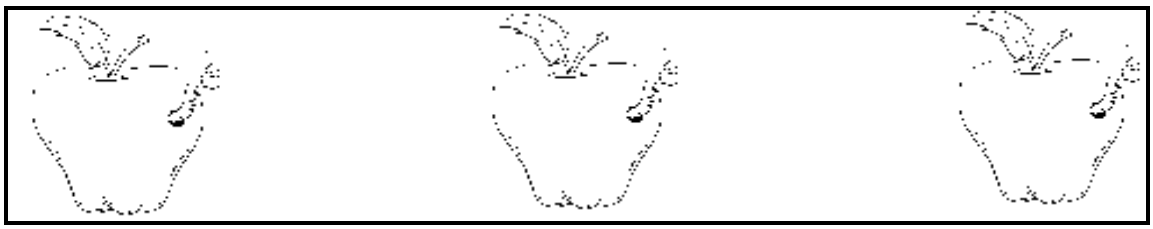
___School Facilities (e.g., lockers, cafeteria)

___Other (Write in)_____



YOUR SCHOOL

1. Do you like going to school? (Circle one)	0 Never		1 Sometimes	2 Almost always
2. Do you like **this** school? (Circle one)	0 I don't like it at all		1 It is okay	2 I like it a lot
3. Do you get or are you eligible for a free or reduced-priced lunch at your school? (Circle one)	(a) Free lunch		(b) Reduced-priced lunch	(c) Neither
4. In how many **academic** clubs do you participate? (e.g., Chess club, Honor society, Student Council) (Circle one)	0	1 - 2	3 - 4	More than 4

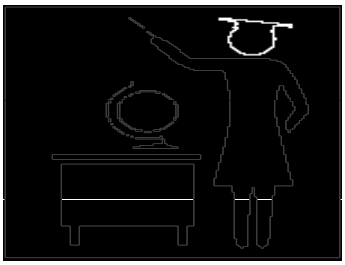


5. How many school **athletic** activities do you participate in **other than PE**? (e.g., football, tennis, cheerleading, basketball, track) (Circle one)	0	1 - 2	3 - 4	More than 4
6. How many activities do you participate in **outside of school**? (e.g., church, recreation center activities, dance/music lessons, community sports) (Circle one)	0	1 - 2	3 - 4	More than 4
7. How much time do you usually spend on **homework** each day? (Circle one)	0 None	1 Less than 1 hr	2 1 -2 hrs	3 More than 2 hrs
8. What **grades** do you **usually** get in school? (Circle one)	1 Mostly As (90s)	2 Mostly As & Bs (90s & 80s)	3 Mostly Bs & Cs (80s & 70s)	4 Mostly Fs (60s & lower)

9. About how many days of school did you miss **over the last six week** grading period? (Circle one)	0 None	1 1-2 days	2 5-7 days	3 10 days or more

10. Students often miss school when they are sick. If you miss school when you are **not sick**, what are the reasons? (Check all that apply)

a) _____ I never miss school.
b) _____ I don't feel like going to school.
c) _____ I have to work.
d) _____ I feel like I don't belong.
e) _____ I have to help my mom with younger brothers and sisters.
f) _____ I don't have my homework done.
g) _____ I am out of town.
h) _____ Classes are boring.
i) _____ I miss the bus and I don't have a way to school.
j) _____ I overslept.
k) _____ My mom is sick.
l) _____ I had a fight with a parent.
m) _____ I went to a funeral.
n) _____ Other (Write in)_____



11. Tell us about **your <u>TEACHERS</u>** at Fulmore. (Circle one for each line.)

My Teachers:

	None of my teachers	Some of my teachers	Most of my teachers	All of my teachers
a) expect good behavior from me.	0	1	2	3
b) demand too much homework from me.	0	1	2	3
c) encourage me to share my ideas in class.	0	1	2	3
d) respect my opinions.	0	1	2	3
e) think I am a troublemaker	0	1	2	3
f) care about me.	0	1	2	3
g) give me praise.	0	1	2	3
h) are mean to me.	0	1	2	3
i) help me when I need it.	0	1	2	3
j) think I am smart.	0	1	2	3
k) embarrass (diss) me in class	0	1	2	3

l)	expect good work from me.	0	1	2	3
m)	don't even know I'm here.	0	1	2	3

12. Tell us more about the **TEACHERS** at Fulmore. (Circle only one answer for each)

		Strongly Disagree	Disagree	Not sure	Agree	Strongly Agree
a)	It would be **nice** to have **more Asian** teachers here.	1	2	3	4	5
b)	It would be **nice** to have **more Mexican-American, Hispanic,** or **Latino** teachers here.	1	2	3	4	5
c)	It would be **nice** to have **more Black or African American** teachers here.	1	2	3	4	5
d)	It would be **nice** to have **more White/Anglo** teachers here.	1	2	3	4	5
e)	It would be **nice** to have **more Native American** teachers here.	1	2	3	4	5
f)	It would be **nice** to have **more Spanish speaking** teachers here.	1	2	3	4	5

13. Tell us about the **STUDENTS** at Fulmore. (Circle only one answer for each)

	Strongly Disagree	Disagree	Not sure	Agree	Strongly Agree
a) It would be **nice** to have **more Asian** students here.	1	2	3	4	5
b) It would be **nice** to have **more Mexican-American, Hispanic,** or **Latino** students here.	1	2	3	4	5
c) It would be **nice** to have **more Mexican** students here.	1	2	3	4	5
d) It would be **nice** to have **more Black or African American** students here.	1	2	3	4	5
e) It would be **nice** to have **more White/Anglo** students here.	1	2	3	4	5
f) It would be **nice** to have **more Native American** students here.	1	2	3	4	5
g) It would be **nice** to have **more Spanish speaking** students here.	1	2	3	4	5

14. At this school, how do students of different racial or ethnic groups feel about interacting with each other? (Circle one)

1	2	3	4
Very Uncomfortable	**Somewhat Uncomfortable**	**Somewhat Comfortable**	**Very Comfortable**

YOUR FRIENDS

BEST FRIENDS

In Middle School, kids often have one BEST FRIEND. Out of all your friends, your best friend is the person to whom you feel the closest.

1. Do you have a **best friend**? (Circle one)	0 No	1 Yes	2 Not at this time

If you do not have a best friend go to page 15.

2. How old is your **best friend**? (Circle one)

(a)	(b)	(c)	(d)	(e)
9-11 years old	12-14 years old	15-17 years old	18-20 years old	More than 20 yrs

3. My **best friend** is a (Circle one) 1 Girl 2 Boy

4. My **best friend** is

(Circle one)

(a) Mexican-American, Hispanic, or Latino

(b) Mexican

(c) Black or African American

(d) White or Anglo

(e) Asian or Asian American

(f) Native American

(g) Other (Write in)

_____

5. Think of your **best friend.** Circle one answer for each line.

	Strongly Disagree	**Disagree**	**Not Sure**	**Agree**	**Strongly Agree**

a) My **best friend** and I go to each other's houses after school and on weekends.	1	2	3	4	5
b) Sometimes my **best friend** and I just sit around and talk about things like school, sports, and things we like.	1	2	3	4	5
c) My **best friend** can bug me or annoy me even though I ask her/him not to.	1	2	3	4	5
d) My **best friend** and I can argue a lot.	1	2	3	4	5
e) If I forget my lunch or need a little money, my **best friend** will loan it to me.	1	2	3	4	5
f) If other kids are bothering me, my **best friend** will help me.	1	2	3	4	5

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
g) If I have a problem at school or at home, I can talk to my **best friend** about it.	1	2	3	4	5
h) If my **best friend** or I do something that bothers the other one of us, we can make up easily.	1	2	3	4	5
i) If my **best friend** had to move away, I would miss her/him.	1	2	3	4	5
j) If I have a secret, I can tell my **best friend** without him/her telling anyone else.	1	2	3	4	5
k) My **best friend** would stick up for me if another kid was messing with me.	1	2	3	4	5
l) Sometimes my **best friend** does things for me, or makes me feel special.	1	2	3	4	5
m) I can get into fights with my **best friend**.	1	2	3	4	5
n) My **best friend** would help me if I needed it.	1	2	3	4	5
o) I feel happy when I am with my **best friend.**	1	2	3	4	5

CLOSE FRIENDS

In Middle School, kids often have several CLOSE FRIENDS. Close friends are those people whom you try to talk to almost everyday.

6. How many of your **CLOSE FRIENDS** do these behaviors regularly? (Circle one for each line).

		0 None	1 Some	2 Many	3 All
a)	Study hard/do their homework	0	1	2	3
b)	Drink alcohol	0	1	2	3
c)	Use drugs	0	1	2	3
d)	Talk back to their teachers	0	1	2	3
e)	Talk about going to college	0	1	2	3
f)	Get into fights with other students	0	1	2	3
g)	Skip school	0	1	2	3
h)	Get good grades/are on the honor roll	0	1	2	3
i)	Work part-time	0	1	2	3

j)	Have a serious girlfriend/boyfriend	0	1	2	3
k)	Carry weapons (knives, guns, etc.)	0	1	2	3
l)	Are active in school activities	0	1	2	3
m)	Belong to a gang	0	1	2	3
		0 None	**1 Some**	**2 Many**	**3 All**
n)	Are active in community or religious activities	0	1	2	3
o)	Get along well with their parents	0	1	2	3
p)	Have dropped out of school	0	1	2	3

7. These questions are about the <u>race/ethnicity</u> of your <u>close friends.</u>

		None (0)	**A Few Friends (2-3)**	**Many Friends (4-5)**
a)	About how many close friends do you have who are **Asian**?	None	A Few	Many
b)	About how many close friends do you have who are **Hispanic** , **Latino** or **Mexican-American**?	None	A Few	Many
c)	About how many close friends do you have who are **Black** or **African American**?	None	A Few	Many

d)	About how many close friends do you have who are **White/Anglo** ?	None	A Few	Many
e)	About how many close friends do you have who are **Native American**?	None	A Few	Many
f)	About how many **close friends** do you have who are from **foreign countries** (e.g., Mexico, Guatemala, Honduras, El Salvador, Colombia, Venezuela, Cuba, Puerto Rico, Pakistan, Vietnam, Ethiopia, Korea, India)?	None	A Few	Many

8. Indicate how comfortable **your close friends** might feel about being with a person of a different racial or ethnic group in each potential situation. (Circle one for each statement)

	1 Uncomfortable	**2 Somewhat Uncomfortable**	**3 Somewhat Comfortable**	**4 Very Comfortable**
a) Visiting someone of a different racial or ethnic group at her or his home	1	2	3	4

b)	Working on a class project with someone of a different racial or ethnic group.	1	2	3	4
c)	Having a boyfriend or girlfriend of a different racial or ethnic group	1	2	3	4
d)	Eating lunch at school with someone of a different racial or ethnic group	1	2	3	4
e)	Hanging out during free time at school (e.g., before or after school) with someone of a different racial or ethnic group	1	2	3	4

YOUR CROWD

In Middle School, kids often belong to a crowd or group. A crowd or group are those people with whom you hang out. The following section is about this type of relationship.

CROWD NAME	10. Check the group(s) to which you **now belong**	11. Check the group(s) to which you would **like to belong**
a) Ordinary/Normal	_____	_____

b) Brain	_____	_____
c) Druggie	_____	_____
d) Smoker	_____	_____
e) Kicker	_____	_____
f) Jock/Athlete	_____	_____
g) Loner	_____	_____
h) Band	_____	_____
i) Freak	_____	_____
j) Nerd	_____	_____
k) Popular-Nice	_____	_____
l) Popular-Stuck Up	_____	_____
m) Preps	_____	_____
n) Rapper	_____	_____
o) Grunge/Skater	_____	_____
p) Schoolboy/Schoolgirl	_____	_____
q) Gangster/Gangbanger	_____	_____
r) Hispanic/Latino	_____	_____
s) Black/African Am.	_____	_____
t) Asian/Asian Am.	_____	_____
u) White/Anglo	_____	_____
v) Multiracial	_____	_____
w) Other (Write In) _____	_____	_____

YOU AS A PERSON

1. These statements are about how YOU feel about yourself. Use the numbers below to indicate how much you agree or disagree with each statement about yourself.

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
a)	Overall I am satisfied with myself.	1	2	3	4	5
b)	At times I think I am no good at all.	1	2	3	4	5
c)	I feel that I have a lot of good qualities.	1	2	3	4	5
d)	I am able to do things as well as most other people.	1	2	3	4	5
e)	I feel I do not have much to be proud of.	1	2	3	4	5

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
f)	I feel useless at times.	1	2	3	4	5
g)	I feel that I am a person of worth, at least equal with others.	1	2	3	4	5
h)	I wish I respected myself more.	1	2	3	4	5
i)	Overall I feel I am a failure.	1	2	3	4	5
j)	I have a positive attitude about myself.	1	2	3	4	5

ETHNICITY AND CULTURE

1. These statements are about your culture and your ethnic group and how you feel about each. Please circle one answer for each statement.

		Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
a)	My ethnicity/culture is important to me.	1	2	3	4
b)	It is important to me to have close friends from different racial/ethnic groups.	1	2	3	4
c)	I have spent time trying to find out more about my own ethnic group, such as its history, traditions, and customs.	1	2	3	4
d)	I am active in organizations or social groups that include mostly members of my own ethnic group.	1	2	3	4

e)	I have a clear sense of my ethnic background and what it means to me.	1	2	3	4
f)	I like meeting and getting to know people from ethnic groups other than my own.	1	2	3	4



		Strongly Disagree	**Somewhat Disagree**	**Somewhat Agree**	**Strongly Agree**
g)	I think a lot about how my life will be affected by my ethnic group membership	1	2	3	4
h)	I am happy that I am a member of the group I belong to.	1	2	3	4
i)	I sometimes feel it would be better if different ethnic groups didn't try to mix together.	1	2	3	4
j)	I am not very clear about the role of my ethnicity in my life.	1	2	3	4
k)	I often spend time with people from ethnic groups other than my own.	1	2	3	4
l)	I have a strong sense of belonging to my own ethnic group.	1	2	3	4
m)	I understand pretty well what my ethnic group membership means to me, in terms of how to relate to my own group and other groups.	1	2	3	4

n)	In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.	1	2	3	4
o)	I have a lot of pride in my ethnic group and its accomplishments.	1	2	3	4
p)	I don't try to become friends with people from other ethnic groups.	1	2	3	4



		Strongly Disagree	**Somewhat Disagree**	**Somewhat Agree**	**Strongly Agree**
q)	I participate in cultural practices of my own group, such as food, music, or customs.	1	2	3	4
r)	I am involved in activities with people from other ethnic groups.	1	2	3	4
s)	I feel a strong attachment towards my own ethnic group.	1	2	3	4
t)	I enjoy being around people from ethnic groups other than my own.	1	2	3	4
u)	I feel good about my cultural or ethnic background.	1	2	3	4
v)	I have been called names at school because of my racial/ethnic group.	1	2	3	4

w)	I have seen negative words written about my racial/ethnic group at school.	1	2	3	4
x)	I feel that others don't like people from my racial/ethnic group.	1	2	3	4

YOUR FAMILY

1. These questions are about you and your family. (Remember that your answers are CONFIDENTIAL)

Please read each statement and decide how well the statement describes the family you live with now. (Circle one answer for each statement)

		Never	Sometimes	Often	Always
a)	We get along with each other in my family.	0	1	2	3
b)	My family does activities together (e.g., games, movies, go to the park, sporting events)	0	1	2	3
c)	There is strict punishment for breaking rules in my family.	0	1	2	3
d)	My family has time for me.	0	1	2	3

e)	I wish I had a different family.	0	1	2	3
f)	In my family people fight with each other.	0	1	2	3
g)	There is a feeling of togetherness in my family.	0	1	2	3
h)	My family talks about problems and solutions together.	0	1	2	3
i)	I like everything about my family.	0	1	2	3
j)	In my family someone is able to help me with my schoolwork.	0	1	2	3
		Never	**Sometimes**	**Often**	**Always**
k)	There is no use arguing with my parents, what they say goes.	0	1	2	3
l)	In my family everyone has their own problems, so I don't bother them with mine.	0	1	2	3
m)	In my family people are too sick to do things.	0	1	2	3
n)	My family has a lot of problems.	0	1	2	3
o)	In my family people hit each other when angry.	0	1	2	3
p)	In my family people really help and support one another.	0	1	2	3
q)	In my family I have a say in decisions that concern me.	0	1	2	3
r)	I am expected to do my share of work around the house.	0	1	2	3
s)	My family has very little to eat.	0	1	2	3

t)	My family lives with another family.	0	1	2	3
u)	My family is never at home and I am left by myself.	0	1	2	3
v)	My parents know who my friends are.	0	1	2	3
w)	My parents know how I spend my money.	0	1	2	3
x)	My parents know where I go after school.	0	1	2	3
y)	My parents know where I go at night.	0	1	2	3
z)	My parents know what I do with my free time.	0	1	2	3
aa)	My parents know whether or not I do my homework.	0	1	2	3
bb)	My parents review my report card.	0	1	2	3

2. Answer the following questions for the parent or adult in your home to whom you feel the closest.

	Seldom	Sometimes	Often	Always
a) He/she accepts me as I am	1	2	3	4
b) If something is bothering me, he/she will ask me about it.	1	2	3	4
c) He/she is too busy to spend much time with me.	1	2	3	4
d) He/she encourages me to work hard.	1	2	3	4

3. How often does a parent, guardian, or someone else from your family visit your school or talk with your teachers **for any reason** ? (Circle one)

None Several times a year Once a month Weekly

4. If your parents **do not** come to school or talk with your teachers often, what do you think are the reasons? (Check all that apply)

a. ____ They don't feel welcome.
b. ____ Their job takes too much time.
c. ____ Their job won't give them time off.
d. ____ Everything is okay, so they don't need to come to school.
e. ____ My family does not speak English.
f. ____ They have baby-sitting difficulties.

g. ____ They are often sick.

h. ____ They have transportation problems.

i. ____ They are not interested.

j. ____ Other (Write in)_____

5. If you get **good** grades, how does your parent or guardian react?

		0 Never	1 Sometimes	2 Often	3 Always
a)	They tell me I am smart.	0	1	2	3
b)	They praise me for my hard work.	0	1	2	3
c)	They tell me to do even better next time.	0	1	2	3
d)	They say my other grades should be as good.	0	1	2	3
e)	We do something special as a family.	0	1	2	3

6. If you get **poor** grades, how does your parent or guardian react?

		0 Never	1 Sometimes	2 Often	3 Always
a)	They get upset with me.	0	1	2	3
b)	They tell me I am dumb.	0	1	2	3
c)	They offer to help me with my schoolwork.	0	1	2	3
d)	I lose privileges.	0	1	2	3

e)	They tell me to work harder.		0	1	2	3

CONGRATULATIONS .....YOU ARE FINISHED WITH THIS SURVEY!!!!

We will provide preliminary results of this study and how other kids in your school answered the questions. If you would like to talk about these issues with other kids like yourself in a group, please fill out the information below and turn it in separately to the person in charge. Otherwise leave the information blank. Please feel free to make comments about the survey in the comment section.

Comments:

****

I would be interested in joining a group of students like myself to discuss with the researchers some of the issues in the questionnaire.

_____ yes _____ no

My name is _____

Grade: _____ School: _____

Appendix B: Family Influence Scales

Monitoring *alpha = .83*

- My parents know whether or not I do my homework
- My parents review my report card
- There is no use arguing with my parents, what they say goes
- I am expected to do my share of work around the house
- My parents know who my friends are
- My parents know how I spend my money
- My parents know where I go after school
- My parents know where I go at night
- My parents know what I do with my free time

Acceptance/Involvement *alpha = .87*

- We get along with each other in my family
- My family does activities together (e.g. games, movies…)
- My family has time for me
- There is a feeling of togetherness in my family
- My family talks about problems and solutions together
- I like everything about my family
- In my family someone is able to help me with my schoolwork
- In my family people really help and support one another

Family Stress *alpha = .74*

- I wish I had a different family
- In my family people fight with each other
- In my family everyone has their own problems, so I don’t bother them with mine
- In my family people hit each other when angry
- My family has very little to eat
- My family lives with another family
- My family is never at home and I am left by myself

Appendix C: Peer Influence Scales

Self Destructive Peer Influence *alpha = .84*

- Drink alcohol
- Use drugs
- Talk back to their teachers
- Get into fights with other students
- Skip school
- Work part time
- Have a serious boy/girlfriend
- Carry weapons
- Belong to a gang
- Dropped out of school

Self Enhancing Peer influence *alpha = .77*

- Study hard/do their homework
- Talk about going to college
- Get good grades/are on the honor roll
- Are active in school activities
- Are active in community or religious activities
- Get along well with their parents

REFERENCES

Ainsworth-Darnell, J. W. & Downey, D. B. (1998). Assessing the oppositional culture explanation for racial/ethnic differences in school performance. *American Sociological Review, 63,* 536-553.

American Psychological Association (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author.

Arnold, D. H., & Doctoroff, G. L. (2003). The early education of socioeconomically disadvantaged children. *Annual Review of Psychology, 54,* 517-545.

Aseltine, R. H. (1995). A reconsideration of parental and peer influences on adolescent deviance. *Journal of Health and Social Behavior, 36,* 103-121.

Astone, N. M., & McLanahan, S. S. (1991). Family structure, parental practices, and high school completion. *American Sociological Review, 56,* 309-320.

Barnes, H. L., & Olson, D. H. (1989). Parent-adolescent communications and the circumplex model. *Child Development, 56,* 438-447.

Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence, 11*(1), 56-95.

Berndt, T. J. (1979). Developmental changes in conformity to peers and parents. *Developmental Psychology, 15*(6), 608-616.

Berndt, T. J. (1982). The features and effects of friendship in early adolescence. *Child Development, 53,* 1447-1460.

Berndt, T. J. (1996). Transitions in friendships and friends' influence. In J. A. Garber, J. Brooks-Gunn, & A. C. Petersen (Eds.), *Transitions through adolescence: Interpersonal domains and context* (pp. 57-84). Mahwah, NJ: Erlbaum.

Berndt, T. J., Laychak, A. E., & Park, K. (1990). Friends' influence on adolescents' academic achievement motivation: An experimental study. *Journal of Educational Psychology, 82*(4), 664-670.

Berndt, T. J., & Savin-Williams, R. C. (1993). Variations in friendships and peer-group relationships in adolescence. In P. Tolan & B. Cohler (Eds.), *Handbook of clinical research and practice with adolescents* (pp. 203-219). New York: Wiley.

Betancourt, H., & Lopez, S. (1993). The study of culture, ethnicity, and race in American psychology. *American Psychologist, 48*, 629-637.

Brown, B. B. (1989). The role of peer groups in adolescents' adjustment to secondary school. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 188-215). New York: Wiley & Sons.

Brown, B. (1990). Peer groups and peer cultures. In S. S. Feldman, & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 171-196). Cambridge, MA: Harvard University Press.

Brown, B. B., Clasen, D. R., & Eicher, S. A. (1986). Perceptions of peer pressure, peer conformity dispositions, and self-reported behavior among adolescents. *Developmental Psychology, 22*(4), 521-530.

Brown, B. B., & Huang, B. (1995). Examining parenting practices in different peer contexts: Implications for adolescent trajectories. In L. J. Crockett & A. C.

Crouter (Eds.), *Pathways through adolescence: Individual development in relation to social contexts* (pp. 151-174). Mahwah, NJ: Erlbaum.

Brown, B. B., Lohr, M. J., & McClenahan, E. L. (1986). Early adolescents' perceptions of peer pressure. *Journal of Early Adolescence, 6*(2), 139-154.

Brown, B., Mounts, N., Lamborn, S. D., & Steinberg, L. (1993). Parenting practices and peer group affiliations. *Child Development, 64*, 467-482.

Carlson, C. (1999). *Intergroup relations among middle school youth: Survey findings for Dobie Middle School*. Austin, TX: University of Texas at Austin, Department of Educational Psychology.

Carlson, C., & Lein, L. (1998). *Intergroup relations among middle school youth: Final report to the Carnegie Corporation*. Austin, TX: University of Texas at Austin, Department of Educational Psychology.

Carlson, C., Uppal, S., & Prosser, E. C. (2000). Ethnic differences in processes contributing to the self-esteem of early adolescent girls. *Journal of Early Adolescence, 20*(1), 44-67.

Chapell, M. S., & Overton, W. F. (2002). Development of logical reasoning and the school performance of African American adolescents in relation to socioeconomic status, ethnic identity, and self-esteem. *Journal of Black Psychology, 28*(4), 295-317.

Clasen, D. R., & Brown, B. B. (1985). The multidimensionality of peer pressure in adolescence. *Journal of Youth in Adolescence, 14*(6), 451-468.

Darling, N. & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113*(3), 487-496.

DeBaryshe, B. D., Patterson, G. R., & Capaldi, D. M. (1993). A performance model for academic achievement in early adolescent boys. *Developmental Psychology, 29*, 795-804.

deCindio, L. A., Floyd, H. H., Wilcox, J., & McSeveney, D. R. (1983). Race effects in a model of parent-peer orientation. *Adolescence*, 18, 369-379.

Dekovic, M., & Meeus, W. (1997). Peer relations in adolescence: Effects of parenting and adolescents' self-concept. *Journal of Adolescence, 20*, 163-176.

Dietrich, L. C. (1998). *Chicana adolescents: Bitches, 'ho's, and schoolgirls*. Westport, CT: Preager.

Dornbusch, S. M., Ritter, P. L., Leiderman, P., Roberts, D., & Fraleigh, M. (1987). The relation of parenting style to adolescent school performance. *Child Development, 58*, 1244-1257.

DuBois, D. L., & Hirsch, B. J. (1990). School and neighborhood friendship patterns of Blacks and Whites in early adolescence. *Child Development, 61*, 524-536.

Durbin, D. L., Darling, N., Steinberg, L., & Brown, B. B. (1993). Parenting style and peer group membership among European-American adolescent. *Journal of Research on Adolescence, 3*(1), 87-100.

Ensminger, M. E., & Slusarcick, A. L. (1992). Paths to high school graduation or dropout: A longitudinal study. *Sociology of Education, 65*, 95-113.

Fehrmann, P. G., Keith, T. Z., & Reimers, T. M. (1987). Home influence on school learning: Direct and indirect effects of parental involvement on high school grades. *Journal of Educational Research, 80*(6), 330-337.

Finn, J. D. (1998). Parental engagement that makes a difference. *Educational Leadership*, 20-24.

Fordham, S., & Ogbu, J. U. (1986). Black students' school success: Coping with the burden of "Acting White." *The Urban Review, 18*(3), 176-206.

Forehand, R., Biggar, H., & Kotchick, B. A. (1998). Cumulative risk across family stressors: Short- and long-term effects for adolescents. *Journal of Abnormal Child Psychology, 26*(2), 119-128.

Forehand, R., Wierson, M., Thomas, A. M., Armistead, L., Kempton, T., & Neighbors, B. (1991). The role of family stressors ad parent relationships on adolescent functioning. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*(2), 316-322.

Franklin, C. (1992). Family and individual patterns in a group of middle-class dropout youths. *Social Work, 37*(4), 338-344.

Franklin, C., & Streeter, C. L. (1992). Social support and psychoeducational interventions with middle class dropout youth. *Child and Adolescent Social Work Journal, 9*(2), 131-153.

Franklin, C., & Streeter, C. L. (1995). Assessment of middle class youth at-risk to dropout: School, psychological and family correlates. *Children and Youth Services Review*, *17*(3), 433-448.

Fuligni, A. J., & Eccles, J. S. (1993). Perceived parent-child relationships and early adolescents' orientation toward peers. *Developmental Psychology, 29*(4), 622-632.

Garibaldi, A. M. (1997). Four decades of progress…and decline: An assessment of African American educational attainment. *Journal of Negro Education, 66*, 105-120.

Gehring, T. M., Wentzel, K. R., Feldman, S. S., & Munson, J. (1990). Conflict in families of adolescents: The impact on cohesion and power structures. *Journal of Family Psychology, 3*(3), 290-309.

Georgiou, S. N. (1995). Family dynamics and school achievement in Cyprus. *Journal of Child Psychology and Psychiatry, 36*(6), 977-991.

Ginsburg, G. S., & Bronstein, P. (1993). Family factors related to children's intrinsic/extrinsic motivational orientation and academic performance. *Child Development, 64*, 1461-1474.

Giordano, P. C., Cernkovich, S. A., & DeMaris, A. (1993). The family and peer relations of black adolescents. *Journal of Marriage and the Family, 55*, 277-287.

Glasgow, K. L., Dornbusch, S. M., Troyer, L., Steinberg, L., & Ritter, P. L. (1997). Parenting styles, adolescents' attributions, and educational outcomes in nine heterogeneous high schools. *Child Development, 68*, 507-529.

Gonzales, N. A., Cauce, A. M., Friedman, R. J., & Mason, C. A. (1996). Family, peer, and neighborhood influences on academic achievement among African-American

adolescents: One-year prospective effects. *American Journal of Community Psychology, 24*(3), 365-387.

Graham, S., Taylor, A. Z., & Hudley, C. (1998). Exploring achievement values among ethnic minority early adolescents. *Journal of Educational Psychology, 90,* 606-620.

Griffin, B. W. (2002). Academic disidentifiaction, race, and high school dropouts, *High School Journal, 85*(4), 71-81.

Griffith, J. (1996). Relation of parental involvement, empowerment, and school traits to student academic performance. *The Journal of Educational Research, 90*(1), 33-40.

Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development, 65*, 237-252.

Helms, J. E., & Cook, D. A. (1999a). Becoming a race and culture sensitive therapist. *Using Race and Culture in Counseling and Psychotherapy* (pp. 7-14). Boston: Allyn.

Helms, J. E., & Cook, D. A. (1999b). Applications of racial and cultural terminology to therapy. *Using Race and Culture in Counseling and Psychotherapy* (pp. 15-33). Boston: Allyn.

Henry, C. S., Wilson, S. M., & Peterson, G. W. (1989). Parental power bases and processes as predictors of adolescent conformity. *Journal of Adolescent Research, 4*(1), 15-32.

Herman, M. R., Dornbusch, S. M., Herron, M. C., & Herting, J. R. (1997). The influence of family regulation, connection, and psychological autonomy on six measures of adolescent functioning. *Journal of Adolescent Research, 12*(1), 34-67.

Hickman, C. W., Greenwood, G., & Miller, M. D. (1995). High school parent involvement: Relationships with achievement, grade level, SES, and gender. *Journal of Research and Development in Education, 28*(3), 125-134.

Holmbeck, G. N. (1996). A model of family relational transformations during the transition to adolescence: Parent-adolescent conflict and adaptation. In J. A. Garber, J. Brooks-Gunn, & A. C. Petersen (Eds.), *Transitions through adolescence: Interpersonal domains and context* (pp. 167-199). Mahwah, NJ: Erlbaum.

Jencks, C., & Phillips, M. (1998). *The Black-White Test Score Gap*. Washington, DC: Brookings Institution.

Kandel, D. B. (1978). Homophily, selection, and socialization in adolescent friendships. *American Journal of Sociology, 84*(2), 427-436.

Keith, T. Z., Keith, P. B., Quirk, K. J., Sperduto, J., Santillo, S., & Killings, S. (1998). Longitudinal effects of parent involvement on high school grades: Similarities and differences across gender and ethnic groups. *Journal of School Psychology, 36*(3), 335-363.

Keith, T. Z., Reimers, T. M., Fehrmann, P. G., Pottebaum, S. M., & Aubey, L. W. (1986). Parental involvement, homework, and TV time: Direct and indirect effects on high school achievement. *Journal of Educational Psychology, 78*(5), 373-380.

Kerig, P. K. (1998). Moderators and mediators of the effects of interparental conflict on children's adjustment. *Journal of Abnormal Child Psychology, 26*(3), 199-212.

Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 62*, 1049-1065.

Lynch, M., & Cicchetti, D. (1997). Children's relationships with adults and peers: An examination of elementary and junior high students. *Journal of School Psychology, 35*(1), 81-99.

Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen (Series Ed.) & E. M. Hetherington (Volume Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development (4th ed.).* (pp. 1-101). New York: Wiley.

Majors, R. G., & Billson, J. M. (1992). *Cool pose: The dilemmas of Black manhood in America*. New York: Lexington.

Marin, G., & Marin, B. (1991). *Research with Hispanic Populations*. Newbury Park, CA: Allyn & Bacon.

Melby, J. N., & Conger, R. D. (1996). Parental behaviors and adolescent academic performance: A longitudinal analysis. *Journal of Research on Adolescence, 6*(1), 113-137.

Mounts, N. S., & Steinberg, L. (1995). An ecological analysis of peer influence on adolescent grade point average and drug use. *Developmental Psychology, 31*(6), 915-922.

Mickelson, R. A. (1990). The attitude-achievement paradox among black adolescents. *Sociology of Education, 63*, 44-61.

Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development, 56*, 289-302.

Mueller, D. P., & Cooper, P. W. (1986). Children of single parent families: How they fare as young adults. *Family Relations, 35*, 169-176.

Neisser, U. (Ed.). (1986). *The School Achievement of Minority Children: New Perspectives.* Hillsdale, NJ: Erlbaum.

Ogbu, J. U. (1992). Understanding cultural diversity and learning. *Educational Researcher, 21*(8), 5-14.

Palmer, E. J., & Hollin, C. R. (1997). The influence of perceptions of own parenting on sociomoral reasoning, attributions for criminal behaviour, and self-reported delinquency. *Personality and Individual Differences, 23*(2), 193-197.

Park, H., & Bauer, S. (2002). Parenting practices, ethnicity, socioeconomic status and academic achievement in adolescents. *School Psychology International, 23*(4), 386-396.

Paulson, S. E. (1994). Relations of parenting style and parental involvement with ninth-grade students' achievement. *Journal of Early Adolescence, 14*(2), 250-267.

Phinney , J. S. (1996). When we talk about American ethnic groups, what do we mean. *American Psychologist, 51*(9), 918-927.

Radziszewska, B., Richardson, J. L., Dent, C. W., & Flay, B. R. (1996). Parenting style and adolescent depressive symptoms, smoking, and academic achievement:

Ethnic, gender, and SES differences. *Journal of Behavioral Medicine, 19*(3), 289-305.

Russell, S. C. (1997). Academic difficulties found within the normal family. *Child and Adolescent Psychiatric Clinics of North America, 6*(3), 569-577.

Seginer, R. (1983). Parents' educational expectations and children's academic achievements: A literature review. *Merrill-Palmer Quarterly, 29*(1), 1-23.

Shrivastava, U., & Chandiramani, R. (1995). Scholastic achievement as a function of cognitive style and family environment. *Psycho-Lingua, 25,* 61-64.

Steele, C. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist, 52,* 613-629.

Steele, C. & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69,* 797-811.

Steele, C. M., & Aronson, J. (1998). Stereotype threat and the test performance of academically successful African Americans. In C. Jencks & M. Phillips (Eds.), *The Black-White test score gap* (pp. 401-427). Washington DC: Brookings Institution Press.

Steinberg, L. D. (1986). Latchkey children and susceptibility to peer pressure: An ecological analysis. *Developmental Psychology, 22*433- 439.

Steinberg, L., Darling, N. E., & Fletcher, A. C. (1995). Authoritative parenting and adolescent adjustment: An ecological journey. In P. Moen, G. H. Elder, Jr., & K. Luscher (Eds.), *Examining lives in context: Perspectives on the ecology of human*

development (pp. 423-466). Washington, DC: American Psychological Association.

Steinberg, L., Dornbusch, S. M., & Brown, B. B. (1992). Ethnic differences in adolescent achievement. *American Psychologist, 47*(6), 723-729.

Steinberg, L., Elmen, J. D., & Mounts, N. S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development, 60*, 1424-1436.

Steinberg, L., Lamborn, S. D., Darling, N., Mounts, N. S., & Dornbusch, S. M. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 65*, 754-770.

Steinberg, L., Lamborn, S. D., Dornbusch, S. M., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement, and encouragement to succeed. *Child Development, 63*, 1266-1281.

Sui-Chu, E. H., & Willms, J. D. (1996). Effects of parental involvement on eighth-grade achievement. *Sociology of Education, 69*, 126-141.

Sun, Y., & Li, Y. (2001). Marital disruption, parental investment, and children's academic achievement: A prospective analysis. *Journal of Family Issues, 22*(1), 27-62.

Suzuki, L. A., & Valencia, R. R. (1997). Race-ethnicity and measured intelligence: Educational implications. *American Psychologist, 52*, 1103-1114.

Taylor, L. C., Hinton, I. D., & Wilson, M. N. (1995). Parental influences on academic performance in African-American students. *Journal of Child and Family Studies, 4*(3), 293-302.

Trusty, J. (1999). Effects of eighth-grade parental involvement on late adolescents' educational expectations. *Journal of Research and Development in Education, 32*(4), 224-233.

Urberg, K. A., Degirmencioglu, S. M., & Pilgrim, C. (1997). Close friend and group influence on adolescent cigarette smoking and alcohol use. *Developmental Psychology, 33*(5), 834-844.

Urberg, K. A., Degirmencioglu, S. M., Tolson, J. M., & Halliday-Scher, K. (1995). The structure of adolescent peer networks. *Developmental Psychology, 31*(4), 540-547.

Vickers, H. S. (1994). Young children at risk: Differences in family functioning. *The Journal of Educational Research, 87*(5), 262-270.

Watkins, T. J. (1997). Teacher communications, child achievement, and parent traits in parent involvement models. *The Journal of Educational Research, 91*(1), 3-13.

Weinberger, D., Tublin, S., Ford, M., & Feldman, S. (1990). Preadolescents' social-emotional adjustment and selective attrition in family research. *Child Development, 61,* 1374-1386.

Weiss, L. H., & Schwarz, J. C. (1996). The relationship between parenting types and older adolescents' personality, academic achievement, adjustment, and substance use. *Child Development, 67*, 2101-2114.

Weist, M. D., Freedman, A. H., Paskewitz, D. A., Proescher, E. J., & Flaherty, L. T. (1995). Urban youth under stress: Empirical identification of protective factors. *Journal of Youth and Adolescence, 24*(6), 705-721.

Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology, 90*(2), 202-209.

VITA

Stacey Leigh Bates was born in Tyler, Texas on October 12, 1971. She is the daughter of John David Bates and Claire Veteto Bates. Stacey graduated with honors from Longview High School in Longview, Texas in 1990. She then studied psychology at the University of Texas at Austin and completed her Bachelor of Arts degree in 1995. In 1996, Stacey entered the graduate program in Human Development and Family Studies at the University on North Texas and earned a Master of Science degree in May 1998. In the fall of 1998, following her graduate work at the University of North Texas, Stacey returned to the University of Texas at Austin and entered the School Psychology Doctoral Program. Throughout her graduate career, she has conducted research primarily in the areas of family influences on children's academic performance, reading education, and evidence-based family-school interventions for preschool children. Her work has been published, and she has been an invited presenter at a number of local, state, and national conferences. Stacey completed her doctoral requirements with a predoctoral internship at the Austin Internship in Professional Psychology.

Permanent Address: 12019 Tanglebriar Trail, Austin, Texas, 78750

This dissertation was typed by the author.